United States Department of Agriculture

FIELD DIARY

Utah 1914
July 8 – Aug. 25, 1915

Alex Wilmot

Corinne, Utah

(Official title.)

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INSTRUCTIONS.

Every officer or other employee of the Department of Agriculture conducting work while traveling will, so far as practicable, keep a diary in which will be recorded, under an appropriate date entry, a concise statement of all important matters pertaining to such work and also of any general matters that may be of interest to the Department.

This diary will be retained by the official preparing same, but will be subject to call by the administrative officers of the Department, including the disbursing officer, at any time.

When this book is filled another may be secured by application to the chief of your Bureau or to the disbursing officer of the Department.

James Wilson

Secretary of Agriculture.

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to visit the Bear River marshes when

July 8, 1914 Wednesday.
left Washington 6:10 P.M. via Chesapeake & Ohio Ry.

July 9, 1914.
arrived St. Louis 7:00 P.M.
departed via Burlington 9:00 a.m.

July 10 Friday.
arrived Kansas City 7:40 a.m
departed at 7:50 on Burlington

July 11. Saturday.
arrived Denver Colo 7:50 a.m.
Saw R. B. Rockwell and talked with him regarding the enforcement of the spring shooting law in Colorado.
left Denver via D. & R. G. 9:00 a.m.

July 12, Sunday.
Reached Salt Lake City Utah at 2:35 P.M.
registered at Cullen Hotel.

July 13, Monday.
Called on Game Commissioner F. W. Chambers at nine and talked with him regarding duck disease. Failed to find Dr. Mohler at the Federal Building while Mr. L. B. McCormick to whom I had a letter was not in his office.
In afternoon arranged with Chambers to visit the Bear River marshes where

sick birds had appeared, Wednesday morning.

Talked with Dr. M. R. Stewart and Ch. A. Griffin of the New State Gun Club regarding duck disease.

July 14 Tuesday.

S and Mr. Chambers in forenoon & afternoon getting information on conditions in past years. Was given a permit to collect such birds as were necessary.

Visited Dry Canyon in evening.

July 15 Wednesday.

Left Salt Lake City via U. S. L. at 7:00 a.m. Reached Corinne at 10:27 a.m. Talked with Mr. Hadley regarding the Duck malady.

Joe Cook of the Duckville Gun Club came up in a launch and took me down the river 27 miles to the club arrived at 2. P. M.

Spent the afternoon in the marshes.

July 16, Thursday.

Walked across dry flats east of the clubhouse and down in the marshes on Pintail Neck.

Visited the Bear River Club a mile upstream in the evening

July 17, Friday.
Descended river to Channel #3 and visited the marshes between it & 3½.

July 18, Saturday.
Went out Channel #1 onto Pintail Neck.
Afternoon spent in making post mortem

July 19 Sunday.
Followed out across flats east of Clubhouse. Many birds killed here by striking telephone wires.

July 20, Monday.
Left Duckville Gun Club at 11 A.M. arrived Corinne 12:45 P.M.
Left Corinne via O.S.L. 2:10 arr. Salt Lake City 5:00 P.M.

July 21, Tuesday.
Saw Mr. L. B. McCornick this A.M & made arrangements to visit the new State Gun Club tomorrow. Talked with Mr. Chambers & Dr. Dart in afternoon. Dr. Mohler has not arrived.

July 22, Wednesday.
Called on Dr. Dart again. Was taken out to the new State Gun Club in afternoon in an auto by Dr. Geo Ellerbeck. In company with James Ellerbeck & Dr. Byrne Rented a room for looking in private house

July 23, Thursday.
Left Salt Lake City 7:00 a.m via O.S.L.
Reached Corinne at 10:27 a.m.
Joe Cook met me with a launch & proceeded down Bear River to the Duckville gun Club again.

July 24, Friday.
Went out into the flats through Channel #1. & crossed to mud point.

July 25, Saturday.
Went out Channel #3 into South Bay.

July 26 Sunday.
Made post mortems etc.
Visited Knudsens Club in afternoon & collected some bats.
In the evening walked across to Bear River Club looking for dead birds

July 27. Monday.
Left at nine for Corinne.
Reached Salt Lake City 4:45 P.M.

July 28, Tuesday.
Made arrangements to visit the New State Gun Club.
Work most of day, saw Mr. Chambers.

July 29, Wednesday.
Left Salt Lake City 7:00 a.m.
arrived Woods Cross 7:12. Was taken
to the New Salt Lake Gun Club in wagon.
Worked around the Mallard Pools
in the morning and in the afternoon
on the West Side.

July 30 Thursday.
Went in to Bountiful to get
some material for cages.
Made Post mortems on Avocets in P.M.

July 31, Friday.
Visited Duck Puddles.

August 1, Saturday.
Worked in marshes near
Knowlton's Dam. Traces of dogs
killing ducks here. A few sick ducks

Aug. 2. Sunday.
Very hot. Walked across flats to
grove of willows & cottonwoods.
Collected insects.
Talked with Mr. C. H. Griffin with
regard to conditions on these grounds
in previous years.

August 3 Monday.
Went out East Bay and mts Jordan
River. A few sick birds. Went in to Woods Cross
in evening. Left Woods X at 6:20 P.M. arr. Salt Lake
6:35 P.M.

August 4 Sunday.
Wrote official letters in A. M. & saw Mr. Chambers in regard to Duck matters. Mr. J. Knudsen of Brigham reported large numbers of sick birds near Brigham.
Went to Ogden in the afternoon on the electric line and talked with Mr. G. P. Bigelow in regard to the duck trouble.
Returned to Salt Lake in the evening

August 5, Wednesday.
Left Salt Lake City at 7:00 A. M & reached Woods Cross at 7:12. Going out to the New State Gun Club again. Went up the Jordan River in a boat.

Aug. 6. Thursday.
Went down to Knowltons dam. One sick bird seen.

Aug. 7. Friday.
~~Left W~~ Drove in to Woods Cross early this morning & left at 7:12 for Brigham Reached Brigham at 9:00 A. M. and was met by Jim Knudsen, deputy game warden who took me down into the marshes. Visited a large rookery of snowy Herons & ibis. Though many sick birds had been reported all found little trace of them. Left Brigham at 3.50 arrived Woods Cross 6:20 P. M & returned to New State Gun Club.

Met District Warden Alex Moyes on the train.

August 8, Saturday.
Worked nearly all day on birds secured at Brigham yesterday.
Went in to Woods Cross in evening and left for Salt Lake at 6:20 P.M. arriving at 6:35 P.M.

August 9, Sunday.
Caught a car 6:30 A.M. and went up Emigration Canyon, working in the country all day. Collected a number of insects. Returned to Salt Lake in Evening.

May 16

- Magpie
- Chat
- Song Sparrow
- Wren
- Bluebird
- Robin
- Goldfinch
- Grosbeak
- Spotted Sandpiper
- Killdeer
- Mc Gillivrays Warbler
- Yellow Warbler
- Long-tailed Chickadee
- Meadowlark
- ~~Black Swallow~~
- Brown Blackbird
- Audubon Warbler
- Morning Dove
- Redwing
- House Wren
- Wn Warbling Vireo
- Chipping Sparrow
- Pileolated Warbler
- Yellow headed Blackbird
- Flicker
- Olive backed Thrush
- Rough-winged Swallow ~~108.7~~ 108.0
- Lazuli Bunting ~~108.9~~ 108.0
- Towhee
- Hark Sparrow
- Quail
- Bullock Oriole
- Black throated gray Warbler

Mr. Cannon
City Engineer
City & Co. Building

May 19

- House Wren (18)
- Robin
- Goldfinch
- Meadowlark
- House Finch
- Bullocks Oriole
- Willet
- Killdeer
- Grosbeak
- Night Hawk
- Spotted Sandpiper
- Great Blue Heron ~~108.0~~
- Cinnamon Teal ~~[illegible]~~
- Magpie
- Redwing
- Calif Gull
- Mallard ~~[illegible]~~
- Coot
- Gadwall ~~[illegible]~~
- Yellow Warbler
- Spoonbill ~~[illegible]~~
- Pintail ~~[illegible]~~
- Forster Tern
- Flicker
- Audubon Warbler
- Long billed Curlew
- Rough-winged Swallow
- Cliff Swallow
- Avocet
- Canada Goose
- Snowy Heron
- Cinn. Teal
- ~~Wn Vesper Sparrow~~
- Song Sparrow
- Grosbeak Tern
- Cormorant
- Barn Swallow
- Kingbird
- Marsh Wren
- Redhead Duck
- ~~[illegible]~~
- ~~[illegible]~~
- Song Sparrow
- Coot
- Bittern
- Wilson Phalarope
- Stilt
- Chipping Sparrow
- Sawn Sparrow
- * Still daylight 95.3, 95.8, 97.8.
- Sparrow and Lark
- ~~Bittern~~
- Black-billed Plover
- yellowhead

May 20

- Common Teal
- Sparrow Hawk
- Caspian Tern
- Tern
- Redwing
- Marsh Wren
- Meadowlark
- Bobolink
- Yellow Warbler
- Wilson's Phalarope
- Pectoral Sandpiper
- Coot
- Willet
- Yellowlegs
- Redhead
- Mallard
- Pintail
- Calif. Gull
- Baird's Sandpiper
- Gray Phalarope
- Semipalmated Plover
- Killdeer
- Spotted Sandpiper
- Cinnamon Teal
- Pied billed Grebe
- Coot
- Black Tern
- Forster's Tern
- Caspian Tern
- Black Swallow
- Cliff Swallow
- Barn Swallow
- Tree Swallow
- Violet Green Swallow
- Pied billed Grebe
- Coot
- Redhead
- Gadwall
- Pintail
- Cinnamon Teal
- Shoveler
- Redhead
- Ruddy Duck
- Black Tern
- Forster's Tern
- Caspian Tern
- Bank Swallow
- Cliff Swallow
- Barn Swallow
- Violet Green Swallow
- Tree Swallow
- Bobolink
- Long Spur
- Rails

May 21

- Willet
- Marsh Hawk
- Gadwall
- Cliff Swallows
- Coot
- Shoveler
- Redhead
- Mallard
- Pintail
- Black Tern
- Forster's Tern
- Caspian Tern
- Bank Swallow
- Cliff Swallow
- Barn Swallow
- Violet Green Swallow
- Pied billed Grebe
- Coot
- Redhead
- Gadwall
- Pintail
- Cinnamon Teal
- Shoveler
- Ruddy Duck
- Black Tern
- Forster's Tern
- Caspian Tern
- Bank Swallow
- Cliff Swallow
- Barn Swallow
- Violet Green Swallow
- Tree Swallow
- Bobolink
- Long Spur
- Rails

water salmon in fable -
on open flats mud salmon on surface.
where Scirpus grows back 60

May 22

- Mourning Dove
- Meadowlark.
- Goldfinch
- Marsh Hawk
- Savanna Sp.
- Eng "
- Marsh Wren
- Bobolink
- Forster Tern
- Night Heron
- Yellow Warbler
- Black-billed Cuckoo
- Yellowbird Warbler
- Willet ~~$ 106.0~~
- Curlew
- Ibis
- Snowy Heron
- Night "
- Great Blue "
- Redwing
- Yellowhead
- Violet green Swallow
- Barn "
- Cliff "
- N. Phalarope
- Wilson " ~~$ 103.0~~
- Killdeer
- Bullock Oriole
- Franklin Gull
- Bonaparte "

- Ring-billed Gull
- Albert
- Stilt.
- Coot
- Cinnamon Teal
- Redhead
- Mallard
- Spoonbill
- Pintail

therm. 7:30 a. 46°f
" 8:00 P. 50+°
water guage 8^00 2 ft 1½ in

- Gadwall
- Horn Grebe
- Caspian Tern
- Cormorant
- Can Goose
- Pelicans

May 23

- Sage Thrasher song Colorado Cliff
- Barn Swallow
- Cliff " ~~106.5~~
- Violet Green "
- W. Grebe
- Redwing
- Marsh Wren
- Cowbird
- Savanna Sparrow ~~$ 107.9~~
- Willet
- Curlew
- Forster Tern
- Cinnamon Teal ?
- Kingbird
- Meadowlark
- Coot
- Pied-billed Water ~~$ 107.8~~
- Great Horned Horn
- Night " "
- Snowy " "
- Yellow Bittern ~~$ 107.9~~
- Pelican
- W. W. Sandpiper
- Calif Gull
- Canvasback
- Mallard
- Chipping Sparrow
- Calif Gull
- Goldfinch
- Spotted
- Yellowhead
- Dark Flycatcher
- Cinnamon Teal ~~$ 107.9~~

therm ~~7~~ 3:30 p.m. 52°f
water " 2 ft ~~1~~ 4 in.

color of lake

May 24

- Bittern
- Night Heron
- Great Blue Heron
- Redwing
- Yellowhead
- American Coot
- Meadowlark
- Teal
- Yellow Warbler
- Cinnamon Teal
- Green Winged Teal
- Lesser Scaup
- Canada Goose
- Magpie
- Raven
- Violet Green Swallow
- Gadwall
- Sparrow Hawk
- Cowbird
- Marsh Wren
- Pintail
- Mallard
- Burrowing Owl
- Spoonbill
- Northern Shrike
- Curlew

gage 2 ft 1/4 in.

Teal shot Oct 17
19 .. Spoonbill
first part of Oct
Pintail shot 21st

May 26

- Spotted Sandpiper
- Bullock's Oriole
- Cinnamon Teal
- Spoonbill
- Night Heron
- Yellow Warbler
- Redwing
- Magpie
- Great Blue Heron
- Gadwall
- Rough Winged Swallow
- Song Sparrow
- Killdeer
- Pintail
- Willet
- Lazuli Bunting
- Violet Green Swallow
- Western Tanager
- Curlew
- Sparrow Hawk
- Coot
- Kingbird
- Audubon Warbler

May 23

- Cormorant
- Barn Swallow
- Cliff "
- Violet Green "
- yellow Warbler
- Night Heron — water gauge 2ft +
- Cinnamon Teal 1/1
- yellowhead
- Redwing
- Widgeon
- Wn grebe
- Forster's Tern
- Pintail
- Great Blue Heron
- Coot
- Pelican
- Mallard 1
- Kingbird
- Song Sparrow
- Magpie
- Bullock's Oriole
- Curlew
- Meadowlark
- Marsh Wren
- yellowhead ~~$1090~~
- Gadwall 1
- Redhead 1 — avocet ~~hatched 1039, 1043, 1045~~
- Killdeer
- Avocet — yg ~~1036 1044~~ in pen ~~just hatched~~
- Stilt
- Marsh Hawk.

water out Bruns Overflow has raised 3 inches Slidown by avocet nests + by Salicornia in water.

Water in pools saline

yg Ruddy sick

Certain pools covered with ferment. many bubbles. swarms of small ciliates. Dead floating on top. Live bitter (spre) + Septicomas Tarae floating on surface film.

bottom of these newly flooded pools with 1/4 inch of loose flocculent matter beneath firm clay. Loose mud with strong saline + alkaline tash.

- egg avocets just hatched, pouting
- egg nest of shore 1 egg chipped just above center of broad end. tips of bill with egg tooth (a) darker to black point

May 25

- Robin
- Night hawk.
- Pelican
- Pectoral
- Cinnamon Teal
- Mallard
- Redhead
- Yellowhead
- Lark Sparrow
- Sparrow "
- Yellow Warbler
- Lesser
- Pelican
- Rigid Kingfisher
- Swallow
- Wilson
- Spotted Sandpiper
- Redhead
- Bufflehead
- Mallard
- Hen grebe
- Big Canadian
- Small "
- Calbird
- Travel Fly catcher
- Bittern
- Pied billed Grebe
- Ruby crowned Kinglet.
- Coot
- Widgeon
- Tooth Sand
- Snowy Plover
- Great Blue Heron

Thousands of Cliff swallows gathered on land - could fill hat while they flowed from one place to another. Many dead on surface.

May 29

- True Swallow
- Barn "
- Cliff "
- Redhead
- Canvas Duck
- Mallard
- Coot
- Yellowhead
- Redwing
- Robin
- Meadowlark
- Grasshopper
- Mallard
- Teal
- Cow Bird
- Wilson
- Snowy Heron
- Spotted U.
- Widgeon
- Coot
- Red Winged
- Great Blue Heron
- Night Heron
- Blue winged Teal
- Gadwall
- Scaup
- Red Head

water 1 ft 11½
temp - 54.

- Marsh Hawk
- Rail
- Downlicher shot
- Plover
- Pewee

May 25

Robins — Pelican

small shorebirds — peeps
and yellow legs
small slightly white
Pintail — ducks — small white
lead goose

May 26

Nighthawk
Calif Quail
Redwing
Cowbird
Meadowlark
Marsh Wren
Yellow Warbler
Warbling Vireo
Magpie
Caspian Tern
Tanager
Common Seal
Night Heron
Canada Goose
Tree Swallow
Coot
Spotted Sandpiper
Great Blue Heron
Western Kingbird
Kingbird
Long Spur
Killdeer
Goldfinch
Mourning Dove
Willet
Godwit
Dowitcher

Bittern
Snowy Heron
Crescent
Redhead
Pintail
Stilt
Pelican
Canada Goose
Widgeon
Avocet
Calif Gull
Caspian Tern
Pintail
Snowy Heron
heard to coop

June 2

Guage 1 ft 11 3/4

June 3

Guage 1 ft. 11

Red-billed Grebe
Violet Green Swallow
Calif Gull

~~Sue Too~~
Lesser Yellowlegs
Cliff Swallow
Barn "
Violet Green
Curlew
Meadowlark
Roughwinged Swallow
Spotted Sandpiper two that
Common
Wren
Caspian Tern
Great Blue Heron
Night Heron
Brewer Blackbird
Yellow Warbler
Marsh Wren
Spotted Sandpiper
Yellow Head
Redwing
Coot
Willet
Mallard
Long Spur
Coot
Redwing
Red billed Gulls

Lead Pintail & gadwall in fine form
Spring & mostly last fall birds
large areas newly flooded
Marsh soft

June 4

- Violet green Swallow
- Barn "
- Cliff "
- Redwing
- Yellowhead
- Tern species
- Marsh Wren
- Caspian Tern
- Wellet
- Killdeer
- Common Tern
- Night Hawk
- Great Blue Heron
- Gadwall
- Mallard
- Avocet
- Stilt
- Spotted Sandpiper
- Ibis
- Common red Seal
- Pintail
- Swamp Sparrow
- Cowbird
- Yellow Warbler
- Forster Tern
- Coot
- Cormorant
- Buddy tick tick-tickety quack

guag 1 ft 10 3/4

- Kingbird
- Short-eared Owl
- Eng Sparrow

June 5

- Cliff Swallow
- Barn "
- Violet green "
- Song Sparrow
- Cowbird
- Red wing
- Eng. Sparrow
- Killdeer
- Willet
- Meadowlark
- Ibis
- Forster Tern.
- Nighthawk.
- Yellowthroat.
- Night Heron tick tick tick quack
- Mallard
- Cinnamon Teal
- Wren species
- Marsh Wren
- Coot
- Pintail
- Kingbird
- Gadwall
- Magpie
- Spoonbill
- Redhead
- Spotted Sandpiper
- Cormorant
- Stilt
- Avocet
- Great Blue Heron
- Pelican
- Ring-billed Gull
- California Gull

water guage 1 ft. 10 3/4 in.

- Yellowhead
- Tern species
- Buddy Duck
- Redhead.
- Franklin Gull
- Marsh Hawk.
- Nighthawk ~~106.8 & 101.6~~ 106.4.
- Marsh Hawk.

[illegible]

[illegible]

Night heron [illegible] of dead [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible]

June 6

water gauge 1 ft 10 in +

- Bobolink ♀
- Redwing
- Violet Green Swallow
- Cliff " "
- Barn " "
- Yellowhead
- Coot ~~[illegible]~~
- Yellowhead ~~[illegible]~~
- Forster Tern
- Caspian " "
- Calif Gull
- Night Heron ~~[illegible]~~
- Egret
- Tricolored Blackbird
- Brown Thrasher
- Savanna Sparrow
- Marsh Wren
- Kingbird
- Coot
- Wood Duck ~~[illegible]~~
- Kingfisher
- Redhead
- Pintail
- Goldfinch
- Spotted Towhee
- Golden Warbler
- Mallard
- Gadwall
- Cinnamon Teal
- Great Blue Heron
- Snowy Egret
- Pied-billed Grebe
- Virginia Rail
- Sora Sparrow

June 7

- Robin
- Eng Sparrow

water gauge
1 ft 2 in

June 8

- Yellowthroat
- Wm Warbling Vireo
- Marsh Wren
- Redwing
- Rock Wren
- Red-billed Grebe
- Barn Swallow ~~105.0~~

water gauge 1 ft. 10 1/4

June 9

- Yellowthroat
- Wm Warbling Vireo
- Marsh Wren
- Redwing
- Rock Wren
- Red-billed Grebe
- Barn Swallow ~~105.0~~
- Bobolink
- Bank Swallow
- Red-winged Blackbird
- Sparrow Hawk ♂ ~~104.0~~ ♀ ~~105.4~~
- Kingbird
- Pintail
- Redhead
- Ruddy
- Bittern
- Yellowhead. 4 eggs
- Coot
- Bittern
- Bank Swallow
- Cliff
- Bobolink
- Yellow Warbler
- Mallard ~~105.0~~
- Redhead

Brown's Corners
water 2 inches higher

- Ibis
- Coot
- Cliff
- Killdeer
- Black Tern
- Marsh Hawk
- Cormorant ~~105.0~~
- Ruddy

June 10

- Yellowthroat
- Wm Warbling Vireo
- Marsh Wren
- Redwing
- Rock Wren
- Red-billed Grebe
- Barn Swallow
- Bobolink
- Red-winged Blackbird
- Sparrow Hawk
- Kingbird
- Pintail
- Redhead
- Ruddy
- Bittern
- Yellowhead. 4 eggs
- Coot
- Bittern
- Bank Swallow
- Cliff
- Bobolink
- Yellow Warbler
- Mallard
- Redhead
- Ibis
- Coot
- Cliff
- Killdeer
- Black Tern
- Marsh Hawk
- Cormorant
- Ruddy

Coot in nest 4 feet
nearly finished. Nest grown with
[illegible] 4 feet [illegible] 3 feet
[illegible]

sick
Bittern 1
Coot 4
Redhead 1
Mallard 1

June 9

water gauge 1 ft, 10½ in

- Red Wing
- yellow shoulder
- Redwing
- Coot
- Cinnamon Teal
- Redwing
- W. n. Grebe
- Mallard
- Mallard ~~104.5, 101, 105.5~~
- Marsh Wren
- Spotted Sandpiper
- Yellowhead
- Yellow Wren
- Green Winged Teal
- Pintail Duck
- Redhead
- Spoonbill
- Pintail
- Yellowhead
- Brown Duck ~~100 – 105.5~~
- Sora
- Avocet
- Pelican
- Pelican
- Ibis
- Magpie ~~110.2 [illegible] 103.5 gal. water~~
- Herring Gull
- Phalarope
- Virginia Rail
- Ring billed gull

June 10

- Goldfinch
- Curlew
- yellowhead.
- Redwing
- Coot
- Savanna Sparrow
- English Sparrow
- Marsh Wren
- Yellowhead
- Spoonbill
- Redhead
- Coot
- Bittern
- Night Heron
- Coot
- Tattler
- Tattler
- Redhead
- Redhead
- Ibis
- Blue winged Teal
- Cormorant
- Marsh Hawk
- White Pelican
- Nighthawk

water gauge 1 ft 11 in.

avd 25.1.2

June 11

- Purple Martin
- Nighthawk
- Violet Green Swallow
- Barn Swallow
- Cliff "
- Cowbird
- Redwing
- Yellowhead
- Western Tern
- Caspian "
- Night Heron
- Great Blue Heron
- Mallard
- Green Winged Teal
- Pintail
- Lesser Scaup
- Marsh Wren
- Mr Grebe
- Coot
- Common Tern
- Willet
- Killdeer
- Yellow-Headed
- Killdeer
- Stilt
- Magpie
- Calif Quail
- Short eared Owl

June 12

- Purple Martin
- Nighthawk
- Violet Green Swallow
- Barn "
- Cliff "
- Cowbird
- Redwing
- Yellowhead
- Western Tern
- Night Heron
- Great Blue Heron
- Marsh Hawk
- Mallard
- Green Winged Teal
- Pintail
- Lesser Scaup
- Marsh Wren
- Mr Grebe
- Coot
- Common Tern
- Willet
- Killdeer
- Stilt
- Magpie
- Calif Quail

Violet green swallow — June 12
Cliff
Barn
Magpie
Grasshopper sparrow — 1 ft 11/4
Robins
Chipping sparrow
Brewer's blackbird
Common Bobolink
Vesper
Cowbird
Redwing
Yellowhead
Savannah sparrow
Grass
Cooper's

Willet — June 14
White footed sparrow
Barn swallow — 1 ft 11 1/2
Cliff
Yellowthroat
Redwing
Yellowhead
Bobolink
English Sparrow
Traill's Flycatcher
Common Bobolink
Spurwing
Mallard
Redhead
Pintail
Lesser Yellowlegs
Flight Heron
Osprey
Crested Kingfisher
Robin
Pelican Sandpiper
Great Blue Heron
Belted Kingfisher
Killdeer
Dowitcher
Sandpiper
Baltimore Oriole
Kingbird

June 15

- Kingbird
- Wood pewee
- Cinnamon Teal
- Redwing
- Willet
- Western Tern
- Avocet
- Magpie
- Brewer's Sparrow
- Yellowthroat
- Coot
- Marsh Wren
- Barn Swallow
- Night Heron
- Cowbird
- Eng Sparrow
- Mallard
- Pintail
- Yellowhead
- Great Blue Heron
- Sawsy Heron
- Gadwall
- Redhead
- Meadowlark
- Calif Gull
- Pelican
- Ruddy
- Spotted Sandpiper
- Cowbird
- Traill's Flycatcher
- Mourning Dove
- Bullock's Oriole
- Long Sparrow

- Rough winged Swallow
- Swainson's Hawk
- Spoonbill
- Black headed grosbeak
- Bank Swallow
- Cinnamon Teal
- Short eared Owl
- Marsh Hawk.

June 16

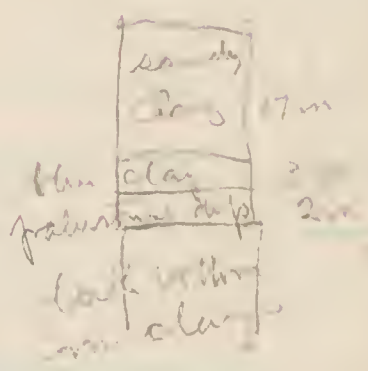
- Willet ~~108.9~~ 8
- Wood grebe ~~101.58~~
- Cinnamon Teal
- Redwing
- Yellowhead
- Gadwall
- Western Tern ~~8 106.6~~
- Magpie
- Pintail
- Marsh Wren
- Savanna Sparrow
- Redhead
- Long Sparrow
- Night Heron
- Great Blue Heron ~~8 102.9~~
- Ibis
- Spoonbill
- Eastern Tern
- Pelican
- Wilson Phalarope
- Spotted Sandpiper
- ~~Long Sparrow~~
- Cowbird
- Mallard
- ~~Spoonbill~~
- Ruddy
- Snowy Heron
- Stilt
- Avocet
- Virginia Rail
- Meadowlark
- Marsh Hawk
- Barn Swallow

- Cliff Swallow
- Yellowthroat
- Coot
- Eng Sparrow
- Calif Gull
- ~~8 107.0~~
- Ring billed Gull
- Killdeer
- Franklin Gull.
- Cormorant
- Goldfinch
- Yellow Warbler
- Goose
- Gull young 17 1/4
- Sage Thrasher

Water gauge 2 ft

- Green-winged Teal
- Pintail
- Redhead
- Lesser Scaup
- Ring-necked Duck
- Cormorant
- Pelican

water grass 2 ft 3/4 mo



3503 Redhead 9 R.F.
4 ♀
3 Mallard

- Blue-winged Teal
- Cinnamon Teal
- Mallard (with brood)
- Gadwall
- Green-winged Teal
- Shoveler
- Pintail
- Redhead
- Lesser Scaup
- Cormorant
- Pelican
- Coot
- Spotted Sandpiper
- Killdeer
- Willet
- Calif. Gull
- Caspian Tern
- Forster's "
- Black "
- Elegant "
- Gr. & Blue Herons
- Snowy Egret
- Kingfisher
- Marsh Hawk
- Marsh Wren
- Bittern
- Redwing Blackbird
- Long-billed Marsh Wren
- Yellow-headed "
- Bittern "
- Long-billed Curlew
- Hudsonian Godwit
- Western Sandpiper
- Least "
- Black-bellied Plover
- Semipalmated "
- Killdeer
- Sanderling
- Dowitcher
- Yellowthroat
- Chat
- Marsh Wren
- Robin
- Dust Martin
- Swallow

June 15

- Yellowthroat
- Chat
- Marsh Wren
- Robin
- Dust Martin
- Swallow

yt. 1½
yt. 3½

Jan 20

- English Sparrow ♀ ~~1 yg. ♂ 1 yg.~~
- Pintail 1 yg.
- Cinnamon Teal
- Gadwall
- Tufted
- Redhead
- Ruddy
- Spotted Sandpiper
- Pelican
- Cormorant
- Coot
- Red Phalarope
- Meadowlark ~~♂ 1 yg.~~
- Yellowhead
- Brown Blackbird ~~♂ 1 yg.~~
- Bullock's Oriole, yg in nest
- Canada Goose
- Willet
- Curlew
- Horned Lark
- Brown Sparrow
- Sage Thrasher
- Robin
- Sage Sparrow
- Yellow Warbler
- Lazuli Bunting
- Barn Swallow
- Rough winged Swallow
- Smoky Plover ~~1 ♂ 3~~
- Golden
- Black Heron
- Great Blue Heron

dead
Pintail 1 yg 11
" 1 ad 11
Mallard 1
Teal 1
Widgeon 1
Pintail 11

This spring a southerly wind has blown water up to a mile east of Club-house. Drift seen in salt grass. Both channel contains good supply of water & water is high.
Salt water has killed off much of Scirpus. dead stalks remain but only in a few places as green growth coming up

June 21

- Merganser ♂ ~~1875~~
- Cinnamon Teal
- Gadwall
- Meadowlark
- Spotted Sandpiper
- Avocet
- Curlew
- yellow Warbler
- English Sparrow 5½
- Magpie 2 yt
- Redwing
- Chat
- Lazuli Bunting
- Blue-winged Teal ~~1875~~
- Night Heron
- Great Blue Heron
- Rudday
- Lark Sparrow
- Long-eared Owl a Hammond Aft June 10
- Short-eared Owl
- Caspian Tern
- Cabot Gull
- Western Grebe

Jun. 21

- Common Teal
- Common Teal
- Mallard
- Marsh Wren
- Redwing
- Caly Gull
- Black Poll Grosbeak
- Barn Swallow
- Song Sparrow
- Spurwell
- Coot
- Savanna Sparrow
- Willet
- Yellow Warbler
- Pintail ~~[illegible]~~ all flying
- Pelican
- Widgeon
- Redhead
- White Pelican
- Killdeer ~~[illegible]~~
- Godwit
- ~~[illegible]~~
- Avocet
- Long Horn
- Night Horn
- Black Bellied Plover
- Green winged Teal
- Western Grebe
- Yellow Headed
- Cowbird
- Sage Thrasher
- Robin
- Savanna Sparrow

Jun 23

- Magpie ~~105~~
- Ferruginous
- Yellow Warbler
- Redwing
- Marsh Wren
- Tree Swallow
- Coot
- Night Horn
- Cinnamon Teal
- Godwit
- Song Sparrow
- Cowbirds Jun ~~107~~.
- Savanna Sparrow
- Barn Swallow
- Long Sparrow ~~107.6~~
- Marsh Hawk
- Coot ~~[illegible]~~
- Spurwell
- Tree Swallow
- Willet
- Yellowhead
- Robin
- Rock Wren

2 yt-8 m

2 yt-10 m

June 24

- Night Jar
- Red Shouldered Hawk
- Mallard
- Cormorant
- Goldeneye
- Pintail
- Coot
- Killdeer
- Marsh Wren
- Red Wing
- Marsh Hawk
- Osprey
- Gull
- Willet
- Yellowhead
- Bittern
- Sandpiper
- Bobolink
- Cliff Swallow
- Red Wren

June 25

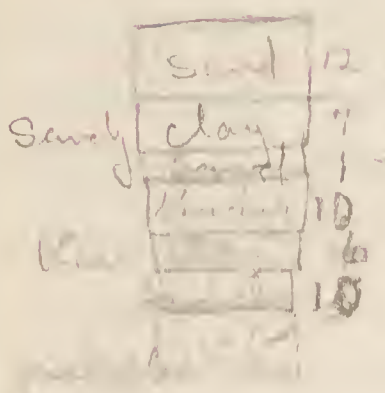
- Coot
- Marsh Wren
- Tern
- Ibis
- Night Heron
- Cormorant
- Redhead
- Swamp Sparrow
- Redwing
- Yellowhead
- Spotted Sandpiper
- Killdeer
- Red Winged Blackbird
- Osprey
- Gull
- Pelican
- Cormorant
- Red Tailed Hawk
- Wren
- Short Eared Owl
- Barn Swallow
- Cliff
- Night Green Heron
- Swamp Sparrow
- Sandpiper
- Coot
- Bittern
- Cormorant
- Willet
- Goldeneye

June 26

- Von grebe
- [illegible] Heron
- Mallard & [illegible]
  - Common Sparrow
  - English "
- Redwing
- Coulard
- Marsh Wren
- Robin
- Foster Tern
- Cinnamon Teal
- [illegible]
- [illegible] hawk
- Pintail [illegible]
- [illegible] Teal
- Canvasback
- Coot
- Great Blue Heron
- Shoveller
- Widgeon
- [illegible] kind of Duck
- Blue-winged Teal
- Raven
- Pusley [illegible]
- Green-winged Teal
- [illegible] & [illegible]
- [illegible]
- [illegible]

3 ft 7 1/4 in.

[illegible] of [illegible]
Well channel,
Water clear fresh.
Big [illegible] of [illegible] of water
[illegible] water [illegible] of [illegible]
channel from [illegible] very [illegible]
[illegible] channel [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] 40 ft [illegible] channel.



[illegible]

Wm Grebe
Night Heron.

June 26

June 27

Robin
Marsh Wren
Pheasant
Meadowlark
Bobolink
Catbird
Cow Bird
Wm Grebe
Yellowthroat
Barn Swallow
Common Chipping Sparrow
Swift
Wilson's
Phoebe
Chickadee
Brown Thrasher
Red Eyed Vireo
Chipping Sparrow
Tree Swallow
Redwing
Bobolink
Tree Swallow
Yellow Warbler.

June 28

Bobolink
Redwing
Yellow Bird
Barn Swallow
Grackle
Song Sparrow
Swift
Red Winged Blackbird
Common Grackle
Redwing
Cedar Bird
Robin
Chipping Sparrow
Red Eyed Vireo
Chickadee
Brown Thrasher
Phoebe
Catbird
Pintail
Mallard
Spoonbill
Bittern
Night hawk.

- Goldfinch
- Iron Duck
- Cinnamon Teal
- Marsh Hawk
- Osprey
- Great Blue Heron
- Yellowhead
- [illegible] Tern
- Coot
- Pelican
- Gold Gull
- Kingfisher
- [illegible]
- Gull
- Bronzy Hum
- Pigeon "
- Redtail
- Mallard
- [illegible]
- Widgeon
- [illegible]
- [illegible]
- Short eared Owl
- Grosbeak
- Franklin Gull
- Yellowthroat
- Savanna Sparrow
- Frog
- Spoonbill
- Barn Swallow
- Cliff "
- Bank "
- Nighthawk
- Franklin Gull

June 29

- Mourning Dove

3 ft 3 in.
[illegible] 60

- Caspian Tern
- Song Sparrow.

June 30

Watersnake 3 ft 3 in

July 1

- Coot
- Barn Swallow
- Pied-billed
- Bank Sparrow
- Mallard with yg 3 f 1 3
- Ruddy yg
- Calif. Gull
- Great Blue Heron ♂ 104.5 ♀ 103.4
- Night Heron 102.1 ♂ 3 m.
- Osprey
- Cowbird
- Eng. Sparrow
- Redwing
- Wm Grebe
- Redhead ♀
- Duck Hawk 104.3
- Mourning Dove
- Magpie
- Meadowlark
- Caspian Tern fish
- Forster's Tern
- Pelican day 28½ in 11½ lbs.
- Pintail
- Gadwall
- Yellow Warbler
- Killdeer
- Spotted
- Bullock's Oriole ♂ 106.8
- Lazuli Bunting
- Downy Hero
- Bittern
- Cormorant

July 2

- Wm Grebe
- Cormorant
- Ibis
- Night Heron
- Cinnamon Teal
- Great Blue Heron
- Coot
- Northern Phalarope
- Spotted Sandpiper
- Killdeer
- English Sparrow
- Savanna "
- Song "
- Yellow Warbler
- Marsh Wren
- Kingbird nest & yg on mtg fungish on head white on back
- Bullock's Oriole yg at B. R. C.
- Redwing yg in nest. males singing
- Yellowhead
- Blackheaded Grosbeak
- Barn Swallow
- Cliff "
- Bank "
- Magpie

- Night Heron — July 3
- Great Blue Heron
- Redwing — 3 ft 3 1/4 in
- Forster Tern
- Marsh Wren
- Barn Swallow
- Brown Blackbird
- Savanna Sparrow
- Spotted Sandpiper
- Willet
- Cinnamon Teal
- Gadwall
- Redhead
- Avocet
- Still
- Pelican
- Song Sparrow
- Killdeer
- Coot
- Spoonbill
- Mallard
- Sooty Tern
- Green winged Teal
- Western Yellowlegs
- Western Gull
- Calif Gull
- Forster Tern ~~105.0~~
- Pintail
- Ruddy "
- Dbis ~~105.0~~
- Green winged Teal
- Blue " "
- Cormorant ~~106.0~~
- Short eared Owl

water in channel ~~twenty~~ salinity
more water apparent and flats less
was apparent ~~from~~ last visit

- Western Gull — July 4
- Cormorant — 3 ft. 3 in
- Pelican — Aylair 13221-2 ✓
- Cinnamon Teal — " 23-4-5 ✓
- Spoonbill
- Caspian Tern — Hamilton 17227-8 ✓
- Forster " — Dyrsmith 17229-30-1 ✓
- Calif. Gull — Hamilton 17232 ✓
- Killdeer
- Willet
- Spotted Sandpiper
- Night Heron
- Great Blue Heron
- Heavy "
- Coot "
- Dbis
- Redwing
- Yellowhead
- Brown Blackbird
- Bullock Oriole
- Eng Sparrow
- Song "
- Barn Swallow
- Tree "
- Cliff "
- Bank "
- Marsh Wren
- Yellowthroat
- Yellow Warbler

July 5

3 ft 2 5/8

- Long-tailed Chickadee
- Savanna Sparrow
- English "
- Marsh Wren
- Killdeer
- Spotted Sandpiper
- Robin
- Marsh Hawk chee chee chee chee
- Magpie
- Great Blue Heron
- Night Heron
- Cinnamon Teal
- Song Sparrow
- Yellow Warbler
- Brown Heron
- Pintail
- Gadwall yg living and ~~1072, 1078, 1074~~
- Song Sparrow
- Pelican
- Crippled Seal ~~2 shot 2 105.5~~
- Gadwall
- Redhead yg now hatched
- Mallet
- Lesser Yellowlegs
- Avocet
- ~~No Pintail~~
- Snowy Plover ~~1064~~
- Burgard ~~1038 Tin.~~

July 6

3 ft 2 3/8 in.

- W. Grebe
- Pied-billed Grebe
- Forster Tern
- Calif. Gull
- Cinnamon Teal
- Short-eared Owl
- Cowbird
- Redwing
- Song Sparrow
- Tree " "
- Savanna "
- Goldfinch
- Magpie
- Yellowthroat
- Yellow Warbler
- Marsh Wren
- Coot
- Barn Swallow
- Bank "
- Cliff "
- Night Heron
- Great Blue "
- Ibis

76 Cormorant

July 7
3 ft 1 1/2

- Grouse
- Marsh Wren
- Marsh Hawk
- Redwing
- Bobolink
- Meadow Lark
- Yellow Warbler
- Yellow Throat
- Yellow Breasted Chat
- Kingbird
- Cuckoo
- Killdeer
- Spotted Sandpiper
- Calif gull
- Ring Bill
- Herring
- Great Blue Heron
- Green
- Wm Sandpiper
- Spotted
- Bank
- Barn Swallow
- Cliff "
- Bank "
- Yellow Throat with young
- Lark Sparrow
- Night Hawk
- Virginia Rail

Mr I chased a [illegible]
Least Vireo
Great crested Fly Catch
Telmatodytes [illegible]
Cattails Marsh pollen. Yellow stand
Telmatodytes [illegible]
" " " 17233-4
Introduced [illegible]
Cattails [illegible]
Telmatodytes 17235-6-7-8-9-40
Prof [illegible] Cattails [illegible]
dead Opossum [illegible] fresh tracks
[illegible] dragged [illegible]
Below [illegible] Schwill [illegible]
Channels [illegible]
Chased [illegible]
[illegible] Sciuro [illegible]
[illegible]

July 8

2 ft 8½ in.

no [illegible]

[illegible]

[illegible]

[

July 9

- American Teal ~~Sat 107.5 Sat 108.2~~
- Black Duck
- Widgeon
- Pintail
- Green wing
- Cinnamon
- Mallard
- Redhead
- Ring Neck
- Scaup
- Bufflehead
- Hooded Merganser
- Sparrow Hawk
- Marsh Hawk
- Great Blue "
- Green Yellowlegs
- Lesser Yellowlegs
- Spotted Sandpiper
- Willet
- Killdeer
- Black Tern
- Forster Tern
- Black "
- Belted Kingfisher
- Kingbird
- Cowbird
- Redwing
- Yellowhead
- Savanna Sparrow
- English "
- Barn Swallow
- Marsh Wren
- Yellow throat

July 10

- Pine Siskin
- Brewer's Sparrow tsee tsee chippy chippy
- Tree Swallow
- Cinnamon Teal
- Golden Plover
- Golden Plover
- Killdeer
- Willet
- Yellowhead
- Pintail
- Redhead
- Canvasback
- Red Head Duck
- Brewer's Blackbird
- Coot
- Gadwall
- Eared Grebe
- Bufflehead
- Pied Bill
- Yellow-headed
- Black Tern
- Raven

2 pt 7½

July 11

- Yellowhead
- Cinnamon Teal
- Calif Quail
- Great Robert
- Tree Swallow
- Pine
- Killdeer
- Pintail
- Green Winged
- Spotted Sandpiper
- Western yellowlegs
- Willet
- Chipmunk
- Elk
- Killdeer
- Duck Hawk
- Short eared Owl
- Brewer's Sparrow
- Yellowhead
- Redwing
- Coot
- Black Tern
- Lark Sparrow
- Barn Swallow
- Bittern
- Raven
- Sage Thrasher

If not a poison why do birds sicken in spring

July 12

- Bobolink
- Redwing
- Meadowlark
- Grosbeak
- Yellowhead
- Brown Sparrow
- Barn Swallow
- Night Hawk
- Magpie
- Crested Jay
- Yellowthroat
- Yellow Warbler
- Spotted Sandpiper
- Solitary Sandpiper
- Killdeer ~~1054~~
- Cardinal
- Common Teal ducks young ones ~~100 F, 104 F, 106 F~~ amp temp 1 day old living
- Marsh Hawk
- Bobwhite
- Goldfinch young 1 day old ~~temp 104.5, 104.1~~
- Finch
- Goldfinch - ~~100.2~~
- Black Tern
- Pewee
- Cedar Bird
- Robin
- Yellowhead
- Swamp Sparrow
- Catbird
- Mourning Warbler
- Yellowthroat
- Cliff Swallow
- Bittern

July 13

- Cowbird 2 pairs 2 yr. 8½.
- Redwing
- Kingbird
- Barn Swallow
- Magpie
- Cinnamon Teal yg day old ~~104.2~~
- Lesser Yellowlegs ~~104.5~~
- Goldfinch
- Tree Sparrow
- Night Hawk
- Robin
- Killdeer
- Yellowhead
- Swamp Sparrow
- Catbird
- Mourning Warbler
- Yellowthroat
- Cliff Swallow
- Bittern

July 14

Bufflehead
Ruddy
Pacific Loon
Bullock's Oriole
Red shouldered Hawk
Wm Sandpiper
Nuttall's Poor Will
Spotted Sandpiper
Common Chimney Swift
Black Swift
Spotted Sandpiper
Pacific Coast Jay
Calif Gull
Tule Wren
Long billed Curlew
Yellow
Bittern
Redhead
Mallard
Marsh Hawk
Cinnamon Teal
Yellowhead
Mallard
Sparrow Hawk
Long billed Curlew
Virginia
Ring billed gull
Meadow
Coast Green
Still
Gull
Pintail
Long billed Curlew
of Redhead

Swallow Hawk ~~2 ft~~
Nuttall's Sparrow

2 ft. 10

July 15

2 ft. 11

Redhead
Ruddy
Pacific Loon
Bullock's Oriole
Red shouldered Hawk
Wm Sandpiper
Nuttall's Poor Will
Spotted Sandpiper
Black Swift
Common Chimney Swift
Pacific Coast Jay
Calif Gull
Tule Wren
Long billed Curlew
Yellowhead
Mallard
Sparrow Hawk
Cinnamon Teal
Redhead
Bittern
Bank Swallows
Pelican.

Meadow
Coast Green
Virginia
Ring billed gull
Still
Gull
Pintail
Long billed Curlew
of Redhead

~~Hooded~~ 8 in dry altitude 1 ft. 2

water ... from Bowers
Coward ... 2 ft mark
slightly alkaline

July 16

3 ft 1 1/2 in

- Night Hawk
- Barn Swallow
- Bank "
- Cliff "
- Kingfisher
- Marsh Hawk
- Song Sparrow
- Killdeer
- Redwing
- Yellowhead, ~~♂ 108.8 ♂ 107.8 ♂ 107.4~~
- Magpie
- Great Blue Heron
- Yellow Warbler
- Wilet
- Cowbird
- Bittern
- Canada Goose
- N.W. Sandpiper ~~♀ad 106.8 ♂ad 106.4 ♀ad 107.5 ♀ad 106.2~~
- Cinnamon Teal
- Marsh Wren.
- Lesser Yellowlegs.
- Cormorant.
- Pelican
- Mallard
- Ring billed Gull
- Godwit ~~♀ 102.7 ♀ 101.6 ♀ 104.3 ♀ 105.6 ♂ 106.5~~
- Wilson Phalarope
- Franklin Gull
- Greater Yellowlegs
- Lesser "
- Black Tern
- Crow ~~134.3~~
- Long billed Dowitcher
- Bittern

Kit Kit Kruckleg)

x

July 17

3 ft. 2 1/2 in

- Caspian Tern
- Pelican
- Redwing
- Redhead
- Barn Swallow
- Bank "
- Cliff "
- Chipping Sparrow
- English Sparrow
- Yellowthroat.
- Marsh Wren.
- Spot. and Uiol.
- Yellowhead.

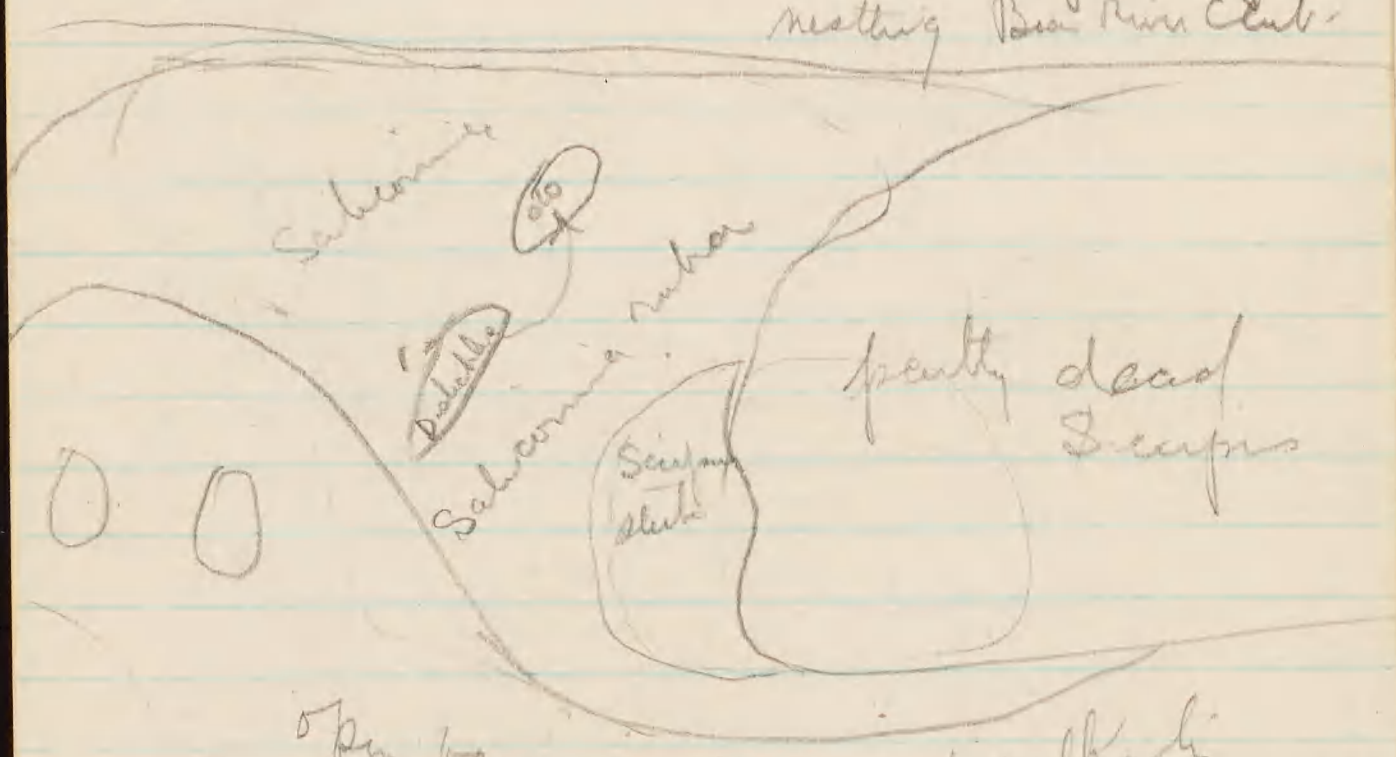
July 18

3 ft 3 in.

- Redwing ~~3.0.4~~
  Savanna Sparrow
  Yellowthroat
- Gull gull
- Night Hawk
  Barn Swallow
  English Sparrow
- Yellowhead ~~109.2~~

✓
85562 Hirundo erythrogastra
nesting Bear River Club
85634-5 do. fledgling

29361-2-3-4 Tyrannus tyr.
nesting Bear River Club.



North Bay recedes. Bare flats with alkali raising, surface mud saline. Much dried Potamogeton, mud still moist

July 19

3 ft 3½ in.
dead fish Jim

- Tree Swallow
- Bank "
- Barn "
- Cliff "
  Marsh Wren
- Yellowhead
- Cinnamon Teal
- Kingbird
- Savanna Sparrow
- Great Blue Heron ~~Fy 101.2~~
- Raven
- ~~Hawk~~
- Ring bill gull
- Avocet
- Snowy Heron ~~104.3, 105.1~~ Fim. Jim.
- Willet
- Godwit
- Black Tern ~~[illegible]~~ Fad Fad
- Mallard
- Franklin Gull ~~104.8~~ Jad
- Marsh Hawk
- Bittern
- Avocet
- Wilson Phalarope ~~104.4, 104.7~~ Fim. Jim.
- Wm Sandpiper
- Ring bill gull
- Marsh Hawk
- Rough-legged Hawk
- Bittern

large areas puffed up in alkali
area of dead salicornia on red pad bed
Scirpus followed by alkali. by Salicornia, Kochia by Salt grass
alkali crust in places over bird tracks
Stubs of Scirpus among Salicornia

July 20

3 ft. 4 in.

- long tailed Chickadee
- Black & Yellow
- Sand
- Chaff
- Sand
- Marsh Wren
- Savanna Sparrow
- English "
- Spotted Sandpiper
- Marsh Hawk
- Mallard
- Night Heron
- Midgeon
- Sandstyperows in long
- Pedunculate
- Cinnamon Teal
- Shortbilled Dowd
- Avocet
- Yellowhead
- Green
- Pintail
- Pelican
- Bonny Heron

July 21

dress no. 2
1 dead Cinnamon

3 ft. 4 in

complete 801 - 8 in
" " 802 & 1

July 22

3 ft 4½ in

- Kingbird
- Robin
- Yellowthroat
- Barn Swallow
- Bank "
- Cliff "
- Night Heron
- Cormorant
- Yellowthroat
- Cowbird
- Savanna Sparrow
- Bittern "
- Pelican
- Mallard
- Spotted Sandpiper
- Great Blue Heron
- Yellow Warbler
- Marsh Wren
- Snowy Heron
- Marsh Hawk
- Meadow
- Marsh ~~1084~~
- Killdeer
- Goose
- Redhead yg living {~~105.6, 106.8, 106.0, 107.5~~ 106.0
- Cinnamon Teal
- Black Tern
- Bittern
- Wilson
- Pintail
- Godwit 1052 1037 ?ad
- Pied billed grebe

July 23

3 ft. 4 3/4

Mallard ♂ im 803

" ♀ im. 804

family fat & active

- Night Heron
- Barn Swallow
- Cliff "
- Redhead
- Kingbird
- Spotted Sandpiper
- Bittern
- Cormorant
- Pelican ~~♂108.8 ♂101.1~~
- Yellowhead ~~♂107.6 ♂107.3 ♂106 ♂107.0~~
- Mallard
- Savanna Sparrow
- Snowy Heron
- Wa Sandpiper ~~♀ 101.2 ♀ 101.1 ♀ 100.0 ♀ 100.0~~
- Godwit. ~~♀ 102.2~~
- Avocet not plain ?
- Forster Tern ~~♀ 104.4 ♂ 101.7 ♀ 108, ♂ 101.3, ♂ 105.2~~
- Avocet ~~♀ 105.4, ♀ 103~~
- Killdeer
- Bittern
- Marsh Hawk
- Kingfisher
- Redhead
- Dowitcher
- Greater Yellowlegs
- Lesser "
- Caspian Tern
- Pintail
- Black Tern
- ~~Least Sandpiper~~
- Willet
- Raven
- W. Grebe

all Eremetes pranni. last two were still alive but in water for 2 min before temp was taken

July 23

Small bag of Evening Grosbeaks

Redhead ♀ ~~[illegible] days old 106.5 ♂ 104~~ not

Mallard not quite adult, not ♂ ~~104.3~~

Green-winged Teal ~~2/3 grown 102 ♂, 105 ♂, 102 ♂, [illegible]~~

~~[illegible] 99 105~~

with original [illegible]

- Pine Siskin
- House Finch
- Nighthawk

July 24

3 ft. 4 1/4.

Yellowhead ~~♂ 101.7 ♂ 101.9~~

~~♂ 102 ♂ 101.2 ♀ 102.1~~

~~♂ 102.5~~

Redwing ~~♂ 107.5~~

July 25

3 ft 2 3/4 in

- Flicker
- Long-tailed Chickadee
- Pine Siskin

July 26

3 ft 2 1/4 in.

♂ in.

July 2 8

- Coot
- Shovel
- Yellowhead
- Redhead
- Swing of geese
- Snipe
- Swamp Hawk
- Night
- Great Blue Heron
- Brown Thrasher
- Hawk
- Duck
- Grebe
- Marsh Wren
- Ruddy ~~105.7~~ 8
- Stilt
- Mallard
- Cinnamon Teal
- Redhead
- Pintail
- Raven
- Western Chickadee
- Pelican
- Calif. Gull
- Coot
- Gadwall
- Coot ♀ in ~~105.5~~ ♂ in 105.5

Weak wing along canal

Red head 2/3 grown wing and temp when just caught ~~105.0 105.1~~

Wing clipped.

Brought in

Coot ~~IIII~~ -
Redhead IIII -
Cinnamon Teal ad. II -
" " sick 1 -
Cinnamon " yg 1 -

1 sick -

Canal temp Cinn. Teals

Coot ~~♂ from 104.0 1/2 106.6 1/3 108.6 2/3 105.7 1/2 107.5 2/3 107.8 3/4 107.1 3/4 107.7~~

Redhead ~~3/4 107.4 2/3 106.5 7/8 g. 108.3 3/4 106.3~~

Cinnamon Teal flapper ~~♀ ad. 109.1 ♀ ad. 105.3~~

Cinnamon Teal sick ~~108.7~~
" " 2/3 grown ~~102.5~~

July 25

Bobolink
Pewee
Jeff
Redbird
Redbird
Mourning Dove
Yellow Warbler
Cormorant
Cormorant Seal
Black Duck
Yellowlegs
Mallard
Robin
Common Heron
Green Heron
Spotted Sandpiper
Sandpiper
Yellow
Pintail
Pintail
Herring Gull
Spotted Sandpiper
Sandpiper
Blue Heron
Black Duck
Wilson Phalarope
Semipalmated
Greater Yellowlegs
Yellowlegs
Yellowlegs
Redwing
Phalarope

Bittern
Least Sandpiper 1073

3 in. 3 ad

3 ad 3 ad 3 ad
~~106.3~~ 106.3 105.6

3 in.

3 ad ~~105~~
~~107.3~~ 9 ad

July 29

Cormorant
Bittern
Great Blue Heron
Night Heron
Barn Swallow
Bank "
Cliff "
Barn Swallow
Cormorant
Yellow Warbler
Cat
Cormorant
Crow Blackbird
Spotted Sandpiper
Sandpiper
Redwood
Redwing
Bittern
Canada Goose
Merganser
Common Teal
Mallard
Sparrow Hawk
Pied-billed Grebe
Belted Kingfisher
canal temp. Air & bank:
Sparrow Hawk
Sandpiper

Length 100
Bittern "
Cat "
Teal "
Redwing

~~106.3~~ 11.6

~~107~~

~~106.3~~ 7/8 106.3 3/4 104.1

Cormorant ~~106.6~~ ~~1/2~~ 100.5 3/4 104.1 3/4 100.1
~~7/8 106~~ ~~7/8 105.9~~
Redwing ~~104~~

- Shrike ~~1 ft 1~~ July 30
- Pachwing ~~[illegible]~~ 3 ft 1 in.

- Night Heron ~~[illegible] Bad~~ July 31
- [illegible]
- [illegible]
- [illegible]
- [illegible]

3 ft 2 1/2 in.

- Yellow Warbler in song Aug 1
- Savanna Sparrow
- Pacific Loon 1 ft 11 3/4
- Duck "
- Duck "
- Yellowhead "
- Red Phalarope
- Kingbird
- Magpie
- Marsh Hawk
- Scoter & muffer
- Scaup "
- Kingfisher
- Shoal
- Pied [illegible]
- Snowy Heron
- Cormorant
- Wagtail
- Redhead
- Ring billed gull
- Flicker
- Cowbird
- Meadowlark
- Canada Goose
- Pelican
- Pintail
- Redhead
- Mallard
- [illegible]
- [illegible]
- [illegible]

Ray & Gunwood
Judge Bldg
Oasis

August 21

- Mallard
- Pintail
- Green & Teal
- Pintail
- Baldpate
- English & Teal
- Gadwall
- Redhead & Canvas
- Scaup
- Ring Neck
- Widgeon
- Bufflehead
- Ruddy
- Redhead
- Black Duck
- Common Teal
- Black Duck
- Shoveler
- Sawbill & Bufflehead
- Pintail
- Yellowhead
- Night Heron
- Lesser Yellowlegs
- Killdeer
- Sage Grouse
- Marsh Hawk
- Plover
- Sandpiper

little mountain, some sage
Gambel's quail
Malad River, some stream
deep into level plain
Land extending from Cedar Fort
west with little mountain range on
it. Farming country. Wheat
Alfalfa
Water has come from Bear
River land lying north east
Malad
Water taken out of Bear River
Salt Creek project to supply
Beaver Creek canal supplied
water it is here

Fred W. Peterson
Transportation
R.F.D. 2 Utah

- Bul 217

About 30 duck hunters came
4 days again and 4 or 5 had
all kinds of ducks unable to
fly. Water never flowed out
or even to river and from
Salt Creek into Salt Canal
and has drained much of the
area.

Sick ducks were found above
two years ago when they were
shooting to allow the birds out
of the marshes below
Salt Creek heads from a

[illegible]

[illegible]

[illegible]

Many corpuscles in water

Post mortem Redhead young
wings developed - still in
rigor mortis
Crystalline lens opaque
lying on breast at back of
nostrils
membrana nictitans slightly drawn
across corner of eye.
a small amount of watery
discharge in eye & nostril.
albumen like mucus in mouth
white normal matter about anus
bodily condition good.
bird still warm bird dead
not more than ten minutes.
heart in diastole
lungs & liver normal
Gall bladder dark green distended
stomach lining yellow, filled
with small round black seeds,
& fig Scarpa
Cropped portion of intestine
jam & reddened capillaries
enlarged
Kidneys with surface
shrunken & lobulated dark in
color

Mammalian S/ ~~tall~~ post mortem
still warm
~~Crystalline lens~~ eye opaque
opaque,
lying on breast
Kidneys showed a diseased
appearance. Yellowish ~~green~~
spot with red, intestine
irritated
gall bladder dark green distended

1 saponified duck corpuscle

young Redhead ten days old.
eye opaque
watery discharge from nostril
One side completely closed.
Heart in systole
Gall bladder dark green distended
Liver spotted with blood
Kidney yellowish white spot
with red
intestinal irritation present in
duodenum
Mallard 3/4 grown post mortem
heart in systole, lungs
congested, liver spotted with
blood, ~~[illegible]~~ dark mottled
intestine normal.

Redhead 2d ~1/3 grown
could barely support head but
could swim.
Membrana nictitans paralyzed
eyes muscles normal. Legs
paralyzed
Hung low from sides
head rocked drunkenly from
side to side as it swam off

Muskrat
Water near center less
salt than at borders

Frog specimen

Yellowhead female barely
able to stand. Legs hanging
loose, arms, with much
excrement around it
bodily condition good
heart & lungs normal.
gall bladder stark green distended
spleen showing some irritation
intestinal wall much
thickened irritated
from stomach to rectum

Chickmalady-

Little Mountain
Sage brush, a low Chrysothamnus
Rhus. & a few Crataegus.
Two bench lines in valley
with central basin above the
Bureau

Lessening water supply to
drain flats with loss of
alkali consequent at risk
of trouble.

Bureau of Soils.
Bear River Survey:
Alkali surveyed by C. A. Jensen
in 1904

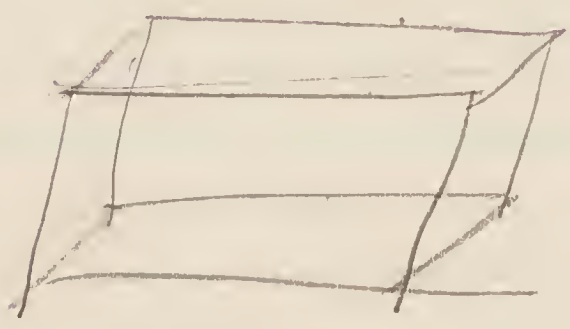
A. E. Snyder Drainage Eng. Corps
Ed. Ryan "

W. L. Holst Bonneville
wild ducks in season

Bill duck at Schanc
Birds at camp
Wed reflect Ogden
Birds at Lesser

Wave
Best angler camp.

Schanc Johnson Tom 5 8/1 5.85



2

3 - 2X4 - 12
7 - 1X4 - 12

2 Old Latts.

Aug 5

- Sandpiper
- Spotted Sandpiper
- Mourning Dove
- Colly gull
- Flicker
- Night Hawk
- Yellow Yellow Hawk
- Killdeer ~~Sun 106.1~~

Aug 6

No 12

13
818 Coot good - good 809 " -
819 Redhead
820 Gronning -

No 11

good 810 Common -
811 " -

No 1

good 812 Redhead -
813 " -

No 3

fat 814 Redhead -
815 " -

No 14

good 816 Coot well -
817 Redhead 3/4 -

Night Heron ~~[illegible]~~.

Aug 6.
3 ft 2 1/2 in

Aug 7
3 ft 3 3/4 in

No 4
Redhead 812 separable to shaft
replaced by Redhead 821
813 fed 821 fed & both shaft
immediately

~~No 1~~ No 1
Redhead ||
Mallard ~~|||~~ -
No 801 in good shape

No 6
Redhead ~~|||~~ -
Gadwall |||
Cinnamon Teal ||| -
Coot ~~|||~~ -
Greenwing || -

Rock Wren
Yellowhead ~~f 1082 & 1085~~
Canyon Wren
f3 salim crust

7:00 P.M.
- No 13 — No 13 contents O.K.
- No 14 — solution little used.
- No 3 — O.K. faces loose
- No 11 — O.K. faces firm abundant
- No 4 — solution ~~[illegible]~~ gone faces loose
No 12 — O.K. faces rather loose

Rise in Lake would cause rise in ground water table. On lowlands this would mean rise of salins.
Evaporation during June, July & August at Lovelock is double that of April or October. In spite of small amount of rain this would tend to keep surface dry. Evaporation would cause formation of alkali crusts on flats clear of water. Especially those near the bay edge where ground water level practically reaches surface. Fluctuation in water level would do the rest.

Trace of boric acid reported in analyses of Lake waters
Mg varies from .57 to 3.18 % in Lake

Aug 8

[illegible]

No 1 [illegible]

No 2 [illegible]

No 3 Solution [illegible] gone [illegible] very [illegible]

No 11 [illegible]

No 4 [illegible]

No 12 [illegible]

No. 10 [illegible]

No. 1 [illegible]

7 [illegible]

13 controls [illegible] abundant food

14 birds O.K. solution [illegible] gone food [illegible]

3 [illegible] 3/4 [illegible] [illegible]

11 [illegible]

4 [illegible]

[illegible]

13 [illegible]

[illegible]

No 12 [illegible]

No 6 [illegible]

No 1 [illegible]

13 [illegible] food [illegible] [illegible]

[illegible]

Aug. 9

3 ft. 6 in

13 Controls O.K. food & water

14 O.K. solution [illegible] very little food [illegible]

3 [illegible]

[illegible] little [illegible]

11. birds O.K. food [illegible]

solution [illegible]

4. [illegible] dead. [illegible] water [illegible] on bottom

12 O.K. [illegible] gone [illegible]

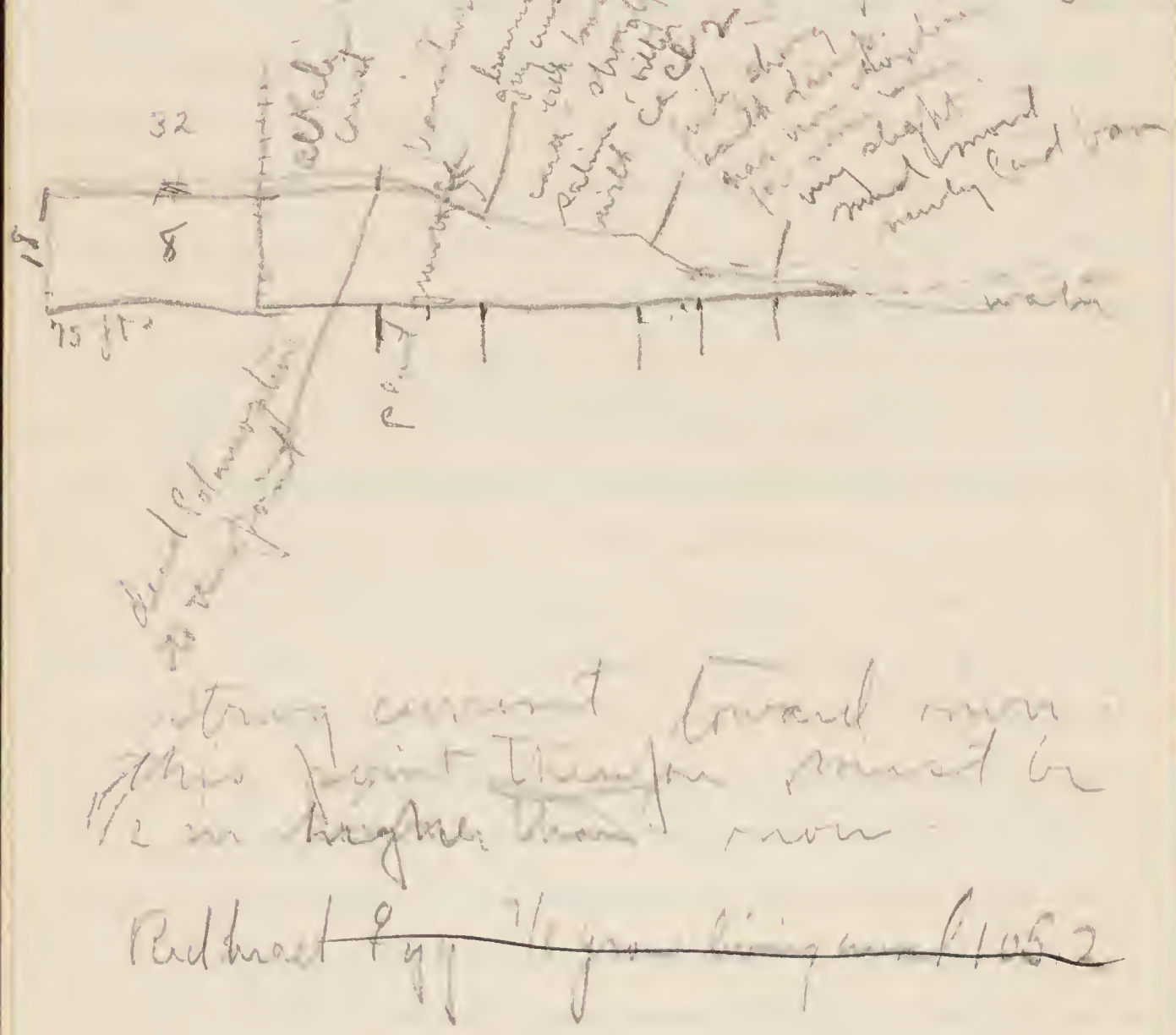
added

Dale Jackwell

Yellowhead — Day 9
Barn Swallow
Night Heron
Yellow Warbler
Bobolink
Dickcissel
Lark Sparrow
Bobolink
Spotted Sandpiper
Redwing
Marsh Hawk
Meadow
English sparrow
Pectoral 9 ~~oct 1057~~
Baird's shot ~~Aug 8 1012~~ 7 m.
Orange bird ~~Oct. 1012~~
Phalarope ~~108.1~~
Wilson's Phalarope
Still
Pectoral
Mallard
Green winged Teal
Green Yellowlegs
Marsh Wren
Snowy Heron — Pomeranian
Garrett
Wilson's Sandpiper
Redwing
Redhead
Ibis
Black Duck
Calif Gull
Willet
Wilson's Phalarope
Gull

Study:
Central pole south
Side outlines degree of slope
Sides, shoal and bottom with weeds

While coming home long pole
Bottom
mud gently level day still not fresh



strong current toward main
this point Thursday present in
1/2 in height than now

Redhead ~~9 11 Yellowlegs 1052~~

[illegible]

7:00 P.M.
13 O.K. [illegible]
14 O.K. [illegible]
3 solution [illegible] removed [illegible]
very loose [illegible] green & white
[illegible]
11 [illegible] birds strong & vigorous
7 Birds O.K. & vigorous solution

12 Birds O.K. [illegible] ~~[illegible]~~ [illegible]
eyes.

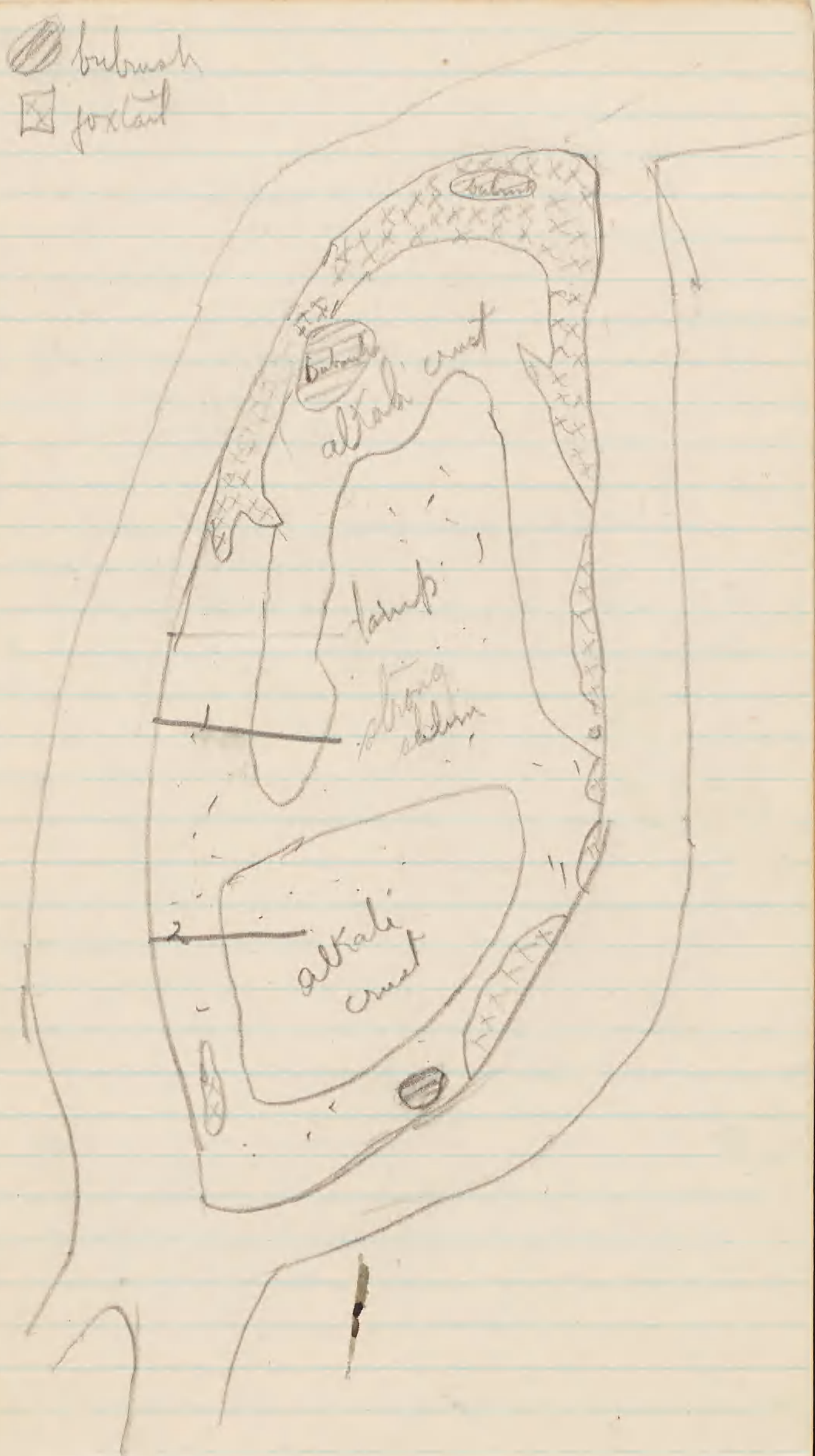
Aug 11
7:00 P.M.

~~Added Redhead~~

7:00 P.M. [illegible]
#12 solution 3 gone [illegible] rather loose
7 Birds O.K. [illegible]
#11 solution 2 gone [illegible] loose birds O.K.
#3 solution [illegible] [illegible] very loose
birds O.K.
#14 solution [illegible] [illegible] rather loose
birds [illegible]
#13 [illegible]

added ~~Redhead~~ ~~IIIIIIIIIV~~
Grunning ~~IIIII~~
7:00 P.M.
No. 12. solution 3/4 gone birds O.K.
[illegible] rather loose.
#7 solution 1/4 gone [illegible] loose
Seal small amount of [illegible] amount
[illegible] white birds [illegible] smart
#11 solution 2/3 gone [illegible] rather loose
birds O.K.
#3 [illegible] [illegible] [illegible] solution
almost gone [illegible] birds O.K.
#14. Solution 1/2 gone [illegible]
birds O.K.
#13 O.K.

Redhead
Ring Necks
Tree Swallows
Bar Swallows
Barn Swallows
Spotted Sandpiper
Killdeer
Mourning Dove
Marsh Hawk
Duck Hawk
Sparrow Hawk
Mallard
Green Heron
Black Crowned Night Heron
Pied billed Grebe
Ruffed Grouse
Bobwhite
Cowbird
Grackle
Red Winged Blackbird
Lesser Yellowlegs
Baird's Sandpiper
Goldwit
Spotted Sandpiper
Bonaparte's Tern



Aug 12
3 ft. 7 7/8

added Redhead ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~
Mallard 1 ~~killed~~

7:00 a.m. Cont. 1
#13. O.K. birds are eating well
#14 solution 3/4 gm. birds O.K. faces fairly fine.
#3 solution gm. removed. faces bare. birds O.K.
#11 solution 3/4 gm. faces fairly fine male not so active. would not fly. female somewhat weakened
#17 solution 1/5 gm. feel dead on breast in pan. very little ~~excrement~~ evident. Redhead very light. rather weak but active. Not obvious that this bird is sinking.
#12 solution 7/3 gm. bird O.K. excrement fairly fine

7:00 P.M.
13 controls O.K. much excrement
14. solution almost gm. removed birds O.K. faces fine.
3. faces very bad birds O.K.
11. ~~birds quiet sitting other solution almost gm removed~~
17 solution 1/5 gm. bird sitt in pot rather weak but took of water pretty well. Head hot pretty drank
12. solution 7/3 gm. birds O.K. both fed much

Aug 13

Killed

Yellow Warbler 108 Water Thrush 101.7

Yellowhead 106.6

2:00 P.M. Redhead [illegible]
[illegible] but has
little control over movement. [illegible]
[illegible] good [illegible] holes
[illegible]
11 1/3 [illegible]

6:00 P.M.
#13 O.K.
#14 O.K. [illegible] a little [illegible]
#3 [illegible] gone [illegible]
[illegible] 6 P.M.
#11 [illegible] [illegible]
[illegible]
#7 [illegible] to hold up [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[

~~[illegible]~~

- [illegible]
- [illegible] "
- [illegible] "
- [illegible] Sparrow
- [illegible] " Jan 13th
- Snow Warbler
- Kingbird
- [illegible] Yellow
- Night Heron
- Marsh Wren
- Redhead
- Ring-billed Gull
- Yellowhead
- Calif gull
- Mallard
- Pelican
- Canvas
- Great Blue Heron
- Bufflehead
- Cinnamon Teal
- Chickadee
- Marsh Hawk
- Green winged Teal
- Coot
- Pintail
- Franklin Gull
- Dowitcher
- Bittern
- Calif gull

Cloud market
Mallard 1
Teal 1
3"
- Gadwall

alkali is varying rapidly in
Grass not more than 6 inches
above the present water level,

Afternoon rising too high
Afternoon at edge of surface

#7
#16 gadwall
#[illegible] redhead

4:00 P.M.
#13 OK.
#14 " [illegible]
#3 [illegible] 3 [illegible]
above dent [illegible] OK.
#11 [illegible] [illegible] & [illegible]
in [illegible] [illegible]
#17 OK.
#12 experiment begun

[illegible]

[illegible] solution 1/2 gm., faeces loose.

No change

#11 solution 1/4 gm., tried O.K.

faeces loose

#7 O.K.

#12 solution 1/4 gm. tried O.K.

faeces formed.

[illegible]

[illegible] p.m.

[illegible]

6.00 p.m.

*794 caught.

72
23/5
9
41/54

93
41/52

Jim Swallows
Bank

~~109.100~~
~~105.4~~

7,710	Redhead	3/4	♂	Ka-a-aew
1		full	♀	Kree-ee-ah
2		3/4		quack
3		7/8		qua-ack
4		about full		quack-a-h
5		7/8		
6		3/4 +		
7		7/4 +		
8		7/8 +		
9		7/8		
780		7/8		
1		7/4 +		
2		full grown -		
3		3/4 +		
4		7/8		
5		2/3 +		
6		3/4		
7		full -		
8		3/4 + -		
9		3/4 +		
790		3/4		
1		7/8		
2		7/8 +		
3		3/4 -		
4		full -		
5		7/8		
6		3/4		
7		3/4		
8		full -		
9		7/8		
800		7/8		
901		7/8 +		
902		7/8 +		
903		7/8		
904		2/3		
905		2/3		
906		2/3		
907		2/3 +		
908		2/3		
909		2/3		
910		3/4		

Aug 16
3 yr 7 3/4 in

7:00 a. m.
#130 O.K.
#14 solution 3/4 gm binds O.K.
#3 solution gm removed
binds O.K.
#11 solution 1/2 gm ~~no~~ charge.
bird a little weak
discharge from nostril evident.
drank, takes loose much wind
#12 solution gm. takes loose.
Desire able to fly. Could barely
stand wings loose from side
eye right good. Redhead wings
loose from sides a little weak

~~#794, 792, 901, 780~~ captured

~~9:00 a. m.~~
~~798 780 780, 792, 794, 901.~~

Aug/6

- Yellow Warbler sum chu chu
- Robin
- Barn Swallow
- Bank "
- Tree "
- Forster Tern
- Common

added
~~Redhead~~

Captured.
9:30 a.m
778, 781, 786
11:40
791

12:45 782, 794
3:00 794.
7:05 780

#8 9:30 a.m
#3 solution removed #5 & 7 drank considerable amount. Little weak from control of neck, a little droopy eyes reflex slow.

#12 solution removed Redhead drank a large amount shaking head repeatedly. cool water squirted down throat appeared still very weak. Teal did not drink so much.
#11 Teal floating in water, rather unsteady on feet. cannot flutter up side of cage. Mean, no. can be brought with difficulty only 3/4 distance back around yr. at times only 1/2. Have been large amount of white mucus gone

9:30
#14 Coot examined O.K - rather light seems a little weak -
#3 abundant loose feces. bride at water.
#11 bird in water no change.
#11 Teal on feet but very droopy & quiet still dirty has not washed

10 [illegible]

[illegible] did not [illegible]

3:00 P.M.

#12 [illegible] lungs [illegible] loose at carpal joint

7:00 P.M.

#13 O.K.

[illegible] solution gone removed coating [illegible]

#3 [illegible] solution [illegible] gone no change

#11 827 Redhead 2/3 gone

825 Gruning [illegible]

#7 [illegible] O.K. [illegible] loose especially in gadwall

#12 [illegible] very little fecal matter. [illegible]

Cong. [illegible]
Aft 7½

#14 [illegible]

#3 [illegible] solution [illegible]

Redhead O.K. [illegible]

#3 [illegible] solution [illegible]

#7 [illegible]

Redhead [illegible]

#12 no change, [illegible] slow [illegible]

[illegible] 94, 951 [illegible] 786

[illegible]

Ring-billed Gull
Pintail
Green-winged Teal
Redhead
Canvas-back
Bufflehead
Barn Swallow
Redhead
Light Brown
Bittern
Raven
Marsh Hawk
Yellow Warbler in migration
Meadow
Redhead
Pintail
Green Teal
Bittern
Canada Goose
Crossbill
Bird
Marsh Hawk
Black Duck
Redhead
Coot
Pintail
Blue
Ring-billed Gull
Redhead
Wilson's Phalarope
Redhead
Pintail

Bittern
Redhead
Redhead
Redhead

Aug 15
1919

O.K.

3.30 P.M.

Birds quiet

#7 Redhead [illegible] in pen-
[illegible] lower [illegible] inches [illegible]
entirely [illegible] seems full of water
placed in vat of pen

Bank Swallows
Barn "
Tree "
Yellowhead
Great Horned Owl
Night Hawk
Yellow Warbler
Sharp Shin
Redhead
Marsh Hawk
Sparrow
Tree Swallow
Yellowhead
Meadow
Longbird
Flicker — Spring Swallow
Bittern
Swallow
Bullock's Oriole
Palpolated Warbler
Cooper's Hawk
Mallard

6 P.M.
#13 O.K.
#14 [illegible]
#3 Solution [illegible] removed bird O.K.
#[illegible] Solution [illegible]
#[illegible] [illegible]

7:00 A.M. — Aug 19

[illegible]

[illegible]

[illegible]

[illegible]

Aug 20

[illegible]
#3 solution 1/3 gm. [illegible]
Abundant, but [illegible]
[illegible] leaving no [illegible]
[illegible] from [illegible]
[illegible] in water. Eyes [illegible]
[illegible] seem [illegible]
[illegible] half way back
across eye. [illegible]
[illegible] eye
[illegible] leaving no [illegible]. eyes half closed
[illegible] [illegible]
[illegible] difficult [illegible]
[illegible] eyes [illegible]
[illegible] discharge, [illegible] left [illegible]

Aug 20

Traille
Fin
Yellow Shafted Flicker
Red Headed Woodpecker
Belted Kingfisher
- Barn Swallow
- Bank "
- Tree "
- Redhead
- Green-winged Teal
- English Sparrow
- Swamp Hawk
- Night "
- Hummingbird
- Kingfisher

6 00 P.M.
[illegible]

Aug 21
Sept 2 '74

129 Pinnated
130 Redhead

Canvasback 794

Western Grebe and Eared
Western Grebe Eared 7 3/4

Pied-billed Grebe [illegible]
[illegible]

Danger zone above which
[illegible]

Barn Swallow
Bank "
Cliff "
White-winged Scoter
Golden-eye
Red-breasted
Ring-billed Gull
Herring "
Bonaparte's "
Caspian Tern
Forster's "
Black Tern
Spotted Sandpiper 2 ad
White-throated
Marsh
Marsh Hawk
Duck Hawk
Pelican
Great Blue Heron
Night
Long-eared Owl
Screech Owl
Raven
Crow
Bald Eagle
Osprey
Great Horned Owl
Bittern
Pied-billed
Coot
Ring-billed Gull
Herring Gull
Bonaparte's Gull
Black-crowned Night Heron
Red-breasted Merganser ♀

Rabbit
Squirrel
Bat

banded ~~no cards~~ ~~recovered~~
Barn Swallow ✓
85666-7-8-9-70

Barn Swallow
Bank "
Cliff "
White-winged Scoter
Golden-eye
Red-breasted
Ring-billed Gull
Herring "
Bonaparte's "
Caspian Tern
Forster's "
Black Tern
Spotted Sandpiper
White-throated
Marsh
Marsh Hawk
Duck Hawk
Pelican
Great Blue Heron
Night
Long-eared Owl
Screech Owl
Raven
Crow
Bald Eagle
Osprey
Great Horned Owl
Bittern
Pied-billed
Coot
Ring-billed Gull
Herring Gull
Bonaparte's Gull
Black-crowned Night Heron
Red-breasted Merganser

Aug 22

Cloth Sheets
Goldfinch
Wm Wayling Vase
Jardiniere Hyacinth
Night Moth
Victoria Lilies
Monarch Moth
Pear Swallow
Pear
Pear Swallow
Lime
Bantam
Sycamore Sphinx
Eggs on milkweed
Yellow Moth
Plum
Jacobin Hyacinth
Lilies
Common Sphinx
Lily Leaf
Cocoon Moth
Potato Beetle

♂ ♂
10:7 10:4
♂
10:4
♀
10:6
2:15:16

911 Rothwell 7/8
2 " 7/8
3 " 7/8
4 " almost full grown
5 " " " " "
6 " 3/4
7 " almost full
8 " 7/8
9 " 3/4
920 1 " 7/8
2 " 3/4
3 " 7/8
4 " 3/4
5 " 7/8
6 " 3/4
7 " 7/8
8 " 3/4
9 " 7/8
930 " 3/4

Aug 29
3 pt 6 Tu

7:00 AM

Pied-billed Grebe, Horned, Eared, Black-crowned Night Heron, Least Bittern, Sandhill Crane, Black-bellied Plover, Semipalmated Plover, Killdeer, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Lesser Yellowlegs, Least Sandpiper, Pectoral Sandpiper, Semipalmated Sandpiper, Western Sandpiper, Short-billed Dowitcher, Wilson's Snipe, American Woodcock, Bonaparte's Gull, Ring-billed Gull, Herring Gull, Caspian Tern, Forster's Tern, Black Tern, Belted Kingfisher, Northern Flicker, Eastern Phoebe, Tree Swallow, Barn Swallow, Marsh Wren, Swainson's Thrush, Veery, Gray Catbird, Brown Thrasher, American Robin, Cedar Waxwing, Yellow Warbler, Chestnut-sided Warbler, Palm Warbler, Yellow-rumped Warbler, Black-and-white Warbler, Common Yellowthroat, Wilson's Warbler, Canada Warbler, Scarlet Tanager, Northern Cardinal, Rose-breasted Grosbeak, Indigo Bunting, Bobolink, Red-winked Blackbird, Eastern Meadowlark, Baltimore Oriole, Purple Finch, House Finch, American Goldfinch, Vesper Sparrow, Savannah Sparrow, Grasshopper Sparrow, Henslow's Sparrow, Chipping Sparrow, Field Sparrow, White-crowned Sparrow, White-throated Sparrow, Dark-eyed Junco, Tree Sparrow, Song Sparrow, Swamp Sparrow, Lincoln's Sparrow, Eastern Towhee, Ruffed Grouse, Wild Turkey, Ring-necked Pheasant, Northern Bobwhite, Yellow-bellied Sapsucker, Downy Woodpecker, Hairy Woodpecker, Red-bellied Woodpecker, Pileated Woodpecker, Eastern Wood-Pewee, Alder Flycatcher, Least Flycatcher, Great Crested Flycatcher, Eastern Kingbird, Red-eyed Vireo, Warbling Vireo, Blue Jay, American Crow, Fish Crow, Black-capped Chickadee, Tufted Titmouse, White-breasted Nuthatch, Brown Creeper, House Wren, Ruby-crowned Kinglet, Golden-crowned Kinglet, Eastern Bluebird, Wood Thrush, Ovenbird, Northern Waterthrush, Louisiana Waterthrush, Mourning Warbler, Common Yellowthroat, Hooded Warbler, Canada Warbler, Yellow-breasted Chat, Scarlet Tanager, Eastern Towhee, Chipping Sparrow, Vesper Sparrow, Savannah Sparrow, Grasshopper Sparrow, Henslow's Sparrow, Dickcissel, Bobolink, Red-winged Blackbird, Eastern Meadowlark, Baltimore Oriole, Purple Finch, House Finch, American Goldfinch, Pine Siskin, Evening Grosbeak, House Sparrow

926 914, 920 911

Geese 3/2 3 Mute

920 - 72 [illegible] 920

Bay-breasted
White-throated
Golden-winged
Blackpoll
Nashville
Palm
Yellow-rumped
Black-and-white
Wilson's
Canada
Mourning
Chestnut-sided
Magnolia
Cape May
Bay-breasted
Blackburnian
Yellow
Yellow-rumped
Black-throated Green
Black-throated Blue
Pine
Prairie
Palm
Cerulean
Blackpoll
Black-and-white
Ovenbird
Northern Waterthrush
Louisiana Waterthrush
Kentucky
Connecticut
Mourning
Common Yellowthroat
Hooded
Wilson's
Canada
Yellow-breasted Chat
Scarlet Tanager
Eastern Towhee
Chipping
Clay-colored
Field
Vesper
Lark
Grasshopper
Henslow's
Savannah
Ipswich
Lincoln's
White-crowned
White-throated
Dark-eyed Junco
Tree
Fox
Song
Swamp
Lapland Longspur
Snow Bunting
Bobolink
Red-winged Blackbird
Eastern Meadowlark
Yellow-headed
Rusty
Brewer's
Common Grackle
Brown-headed Cowbird
Baltimore Oriole
Purple Finch
House Finch
Pine Grosbeak
Pine Siskin
American Goldfinch
Evening Grosbeak
House Sparrow

Ruffed Grouse
Wild Turkey
Ring-necked Pheasant
Northern Bobwhite
Yellow-billed Cuckoo
Black-billed Cuckoo
Eastern Screech-Owl
Great Horned Owl
Barred Owl
Long-eared Owl
Short-eared Owl
Saw-whet Owl
Common Nighthawk
Chuck-will's-widow
Whip-poor-will
Chimney Swift
Ruby-throated Hummingbird
Belted Kingfisher
Red-bellied Woodpecker
Yellow-bellied Sapsucker
Downy Woodpecker
Hairy Woodpecker
Northern Flicker
Pileated Woodpecker
Olive-sided Flycatcher
Eastern Wood-Pewee
Yellow-bellied Flycatcher
Alder Flycatcher
Least Flycatcher
Eastern Phoebe
Great Crested Flycatcher
Eastern Kingbird
Horned Lark
Purple Martin
Tree Swallow
Northern Rough-winged Swallow
Bank Swallow
Barn Swallow
Cliff Swallow
Cedar Waxwing
Red-eyed Vireo
Warbling Vireo
Blue Jay
American Crow
Fish Crow
Black-capped Chickadee
Tufted Titmouse
White-breasted Nuthatch
Brown Creeper
House Wren
Winter Wren
Carolina Wren
Ruby-crowned Kinglet
Golden-crowned Kinglet
Eastern Bluebird
Veery
Wood Thrush
Hermit Thrush
Swainson's Thrush
Gray-cheeked Thrush
American Robin
Gray Catbird
Brown Thrasher
Northern Mockingbird
Cedar Waxwing
Ovenbird
Northern Waterthrush
Louisiana Waterthrush
Kentucky
Connecticut
Mourning
Common Yellowthroat
Hooded
Wilson's
Canada
Yellow-breasted Chat
Scarlet Tanager
Eastern Towhee
Chipping
Clay-colored
Field
Vesper
Lark
Grasshopper
Henslow's
Savannah
Ipswich
Lincoln's
White-crowned
White-throated
Dark-eyed Junco
Tree
Fox
Song
Swamp
Lapland Longspur
Snow Bunting
Bobolink
Red-winged Blackbird
Eastern Meadowlark
Yellow-headed
Rusty
Brewer's
Common Grackle
Brown-headed Cowbird
Baltimore Oriole
Purple Finch
House Finch
Pine Grosbeak
Pine Siskin
American Goldfinch
Evening Grosbeak
House Sparrow

Aug 24
3 pt 6½

- Raven
- Tree Swallow
- Barn "
- Yellowhead
  Pilot Tailed Warbler — Morning Dove
- Spoonbill
- Nº Phalarope
- Marsh Wren
- English Sparrow.
- Flicker
- Night Heron
- Red Head
- Cinnamon Teal
- Murrin
- Spotted Sandpiper
- Duck Hawk
- Wingedpe
- Redwing
- Song Sparrow
- Reedbird
- Marsh Hawk
- Cormorant
- Great Blue Heron
- Traill's Flycatcher
- Hawk Sparrow
- yellow Warbler
- Avocet
- Killdeer
- Mallard
- Coot
- Calif Gull
- Pintail

Aug. 25

Hay Moon Club
Magnetyres
Sherwood Green
Pitch Slough alkali
salt strong current sides hard
alkali water. Moon Jaws
rushes.
White Lake open lake
Williams Lake large open
lake many birds

Morris Gun Club. North to South
Halloran
Rudy
Wardy.
Harrison
× Central
× Black Slough
Cloverleaf
× Williams Lake

New State
Burnham

Duckie Lake } east of Wms Lake
Porter " }

large area fed by Sacramento
Canal. deep channels lined
with rushes

Shirk

Sparrow Hawk
Redtail
Pigeon
Cooper's Hawk
Sparrow
Night Hawk
Great Blue Heron
Swainson's Hawk
Duck
Killdeer
Least Sandpiper
Avocet
Coot
Western Gulls
Forster's Tern
Black Tern
Marsh Hawk
Raven
Horned Lark
Brewer's Sparrow
Lark
Vesper
Savannah
Bronzed Blackbird
Western Meadow and Nighthawk
Virginia Rail
Coot
Meadowlark
Brewer's Blackbird
Kingbird
Nighthawk
Barn Swallow
Pipit
Redtail
Pelican

Sam Williams
Free Contract for Club
Harry Hagman

Nest box
3 x 3 x 3 1/2 3 1/2 deep.
Pine lumber

J. C. Smith
Murray, Utah.

Look up in library
Bacteriology agar-agar
lead arsenate.
but sugar
grade H_2SO_4 used in factories.
Composition of shot.

Film 18

1 gull 8/6
2 "
3 Cabo pass 9/8
4 " " 9/9
5 alkali conditions smelt 9/2 9/11
6 near road [illegible]

Film 19

1 Jumping flapper 9/11
2 "
3
4 Night heron 9/12
5 "
6 "

Film 20

1 Night Heron 9/12
2 "

Film 11

1 Shooting channels
2
3
4
5
6

Film 12

1 neg. 7-2
2 Carp "
3 " "
4 Qubs 7-3
5 " "
6 " "

Film 13

1 Commercial 7/4
2
3
4
5
6

Film 14

1 Commercial 7/4
2 Mangrove " 7/6
3
4 " Qubs 7/8
5 " "
6 " "

Film 15

1 " Qubs 7/8
2
3
4 " Commercial 7/12
5 "
6 "

Film 16

1 jg gadwall 7/12
2 " "
3 " Redhead 7/13
4 " Ruddy 7/16
5 " " "
6 scoming gull 7/18.

Film 17

1 flicks 3½ south 7/28
2 " north "
3 incl Pintail (Coal) 7/28
4 Lab. 7/30
5 Lep. pen 7/30
6 " 7/30

5 gals gasoline
— Polarim.
✓ cornmeal
✓ salt
— fix shoe
— 36 ft 4 ft in. mesh wire
2 bdl lath
— 2 lb [illegible] 5.
— [illegible] file
— 1 lb writing paper.
see stepfoard
— 8 hack tools
— Junior nail brush.
— B 12 qt pails
— brushes
— drawing pants
— 3 Coplin staining jars
— 1 doz 2 qt jars
— Cl [illegible]

— graduate 1 c.c.
— Porcelain mortar 4½ in.
— 6 pipettes bent ends.
— 7 filter paper 1838 15 c.m
— 5 in glass funnel.
— ½ doz watch crystals
— Uranic acid
— absolute alcohol
— labels.
— ½ lb lead metal cp.
— 1 oz Tannic acid
— Fe_2Cl_6 -- 1 oz
— Oxalic acid 1 oz
— Ammonium Hydrate
— formalin
~~boots single Body~~
~~pants 34-34~~
— pants 35-35.
— socks 2 pr heavy
— black bow tie
— shoe strings

8

1 Yg Brown Hens Slaughter Ck 1/2
2 Great Blue Heron
3 "
4 Brown Hen
5 "
6 Redhead

9

1 Night Herons and Slaughter Ck 1/2
2 "
3 "
4 "
5 "
6 Yg Bald Duckville 6/8

10

1 Ca K. 7 6/7
2 "
3 Redhead 6/22
4 Avocet "
5 " "
6

Hello: explain quarterly allotment will not cover expense of additional assistant

Will Pearly

June 10 12:00-8:00 P.M. 8
" 11 4:30-7:30 a.m., 8:00-1:00, 1:30-8:00 14½
" 12 4:30-7:30 8:00-1:00, 1:30-8:00 14½
" 13 4:30-7:30 8:00-1:00, 1:30-5:30 12
9

Dr account with Duckville Gun Club.

May 29	telegram phoned from Brigham	.32
June 1	launch Corinne to Duckville with Cok	2.00
" 8	Long distance, Salt Lake	.46
" 9	" " Corinne	.31
" 3	big launch & flat boat to Kundsen & rt.	3.00
" 15	launch to Corinne & return	4.00
" ~~18~~	~~launch to Corinne~~	
May 29	tele Corinne	.16
		10.25
June 25	Cash to Mr. Finch	10.25

1779 8th Ave

Dr account with Ray Bosly

Aug. 3	rubber boots	4.90
" 23	Cash	4.90

for cages.

one cage requires 3x3x6.

2½ 2x4x12

2½ 1x4x12

7 log 1

1 north little nest May 21

2 North Bay "

3 William Phalarope " 23

4 avocet nest. / orig. " 1 ½32

5 " " / " 2 ½32

6

2

1 orig.

2

3 nesting ground of Kill & avocet 5/23

4 nest "

7

1 elbis Slaughter Co 6/5

2 yg elbis "

3 "

4 elbis nest

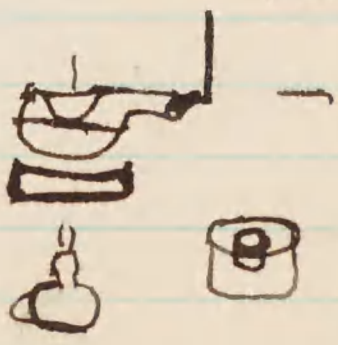
5 Snowy Heron nest "

6 " " "

58°
9
5 | 522
104
32
136°

gasoline

~~May 30 drawing 1 gal~~



In account with Bosley.

May 25	½ dz. black socks		.75
	1 B.V.D. union suit		1.00
	1 pr. Khaki trousers		1.25
May 29	cash		2.00
July 1	received	5.00	

Mr. James Knudsen
Brigham PO 218

~~D. W.~~
E. W. Schneider
Lehi
Utah.

squirrel poison.

Dr. A.K. Fisher c/o Cullen Salt Lake
until 24th
c/o Oxford Denver Colo.

Lion Pantaloons
Col. J.C. O'Conor
Sand Bridge Club
Virginia Beach
Va.

notify L. S. Woodhouse
Sigma
Princess Anne Co.,
Va.

for cages.

one cage requires 3x3x6.

2½ 2x4x12

2½ 1x4x12

Tube 1

1 North little nest May 21
2 North Bay "
3 Wilson Phalarope " 23
4 avocet nest. / ng " 1 of 32
5 " " / " 2 of 32
6

2

1 ng
2
3 nesting ground of avocet 5/23
4 "
5 avocet nest "
6 "

Mr. Herman Kuehler
Box 234, Ogden.

3

1 alkali flies mouth #2 5/27
2 Pit made nests by Ephydra "
3 " "
4 Ephydra "
5 "
6

4

1 Pelican Creek South Bay 6/3
2 Bittern nest Hansen's dd 6/4
3 avocet " " " "
4 Coot " " " "
5 ng " " " "
6 Old Channel " "

5

1 flooded avocet nest ng. 6/4
2 " " " 6/4
3 avocet "
4 " "
5 " "
6 " "

6.

1 Coot nest 6/4
2 avocet " ravaged "
3 yg coot "
4 " "
ng 5 Marsh Wren nest "
6 Slaughter Pt 6/5

see J. Cullen Salt Lake
until 24th
J. Oxford Denver Colo.

Lin Pintado
Col. J. C. O'Conor
Sand Bridge Club
Virginia Beach
Va.

notify L. S. Woodhouse
Sigma
Princess Anne Co.,
Va.

gun oil
~~[illegible]~~
oil for shoes.
2 lbs $CaCl_2$
5 lbs $MgCl_2$.
3 lbs Sodium bicarbonate
2 gal. alcohol
2 cans ether
litmus paper
imbedding apparatus
chloroform
alcohol lamp
graduate
2 trays
2 braces
Carborundum stone
2 lbs [illegible] sage shells.
2 doz pill boxes.
for compass
~~[illegible]~~
cards

Cans in Commissary
2 10 gal milk cans
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
~~hammer~~
~~saw~~
~~shingle nails~~
~~[illegible]~~
~~2 wheelbarrows~~
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
~~tooth paste~~
~~[illegible]~~

~~screen~~
~~screen door~~

for cage.
20 2x4x12
15 1x4x12
42 14 ft pc. matched floor
9 2x4x14

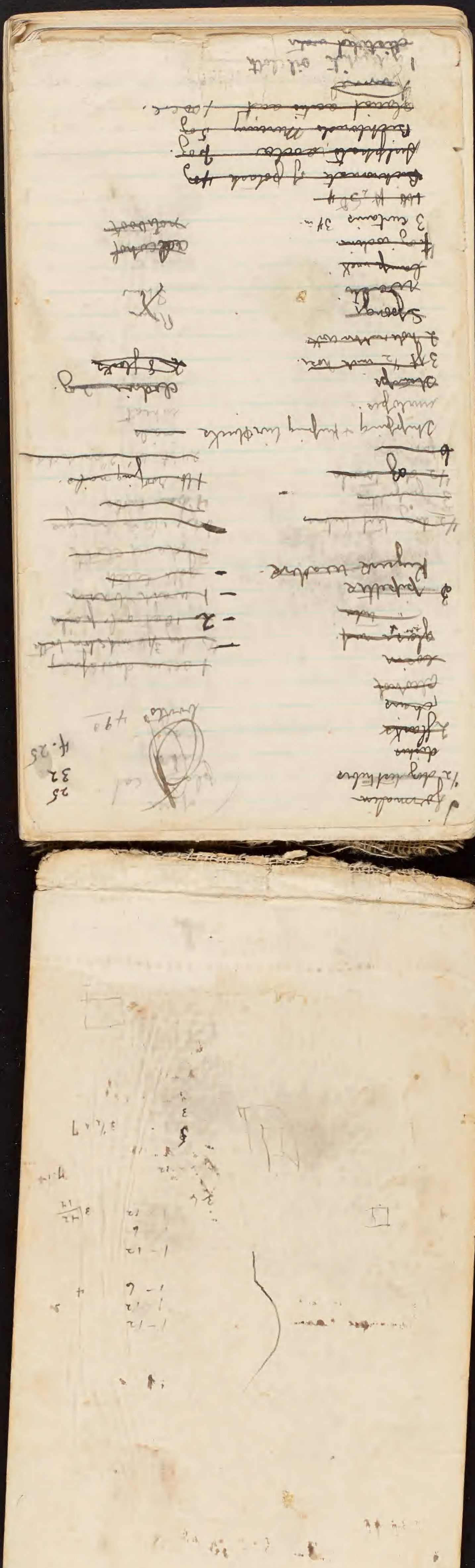
$4.90
Ogden Canyon 7.25 8.55 10.25
1 3/4 in floor flange

Plant Catalog.
328. Ogden, May 14, 1915 legume.
329 " " shrub.
330 " " Indian paint
331 " " sticky plant.
332 " " composite
333 Mouth Bear River Utah May 21, 1915, sedge
334 " " grass

office supplies
~~2 small scratch pads~~

Commissary
Cornmeal 2 sx
Salt 2 sx.
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
~~150 ft.~~
~~12 [illegible]~~
~~[illegible]~~
~~gasoline 5 gal.~~
~~12 qt dish pans.~~
~~mop~~
~~can dutch cleanser~~
~~laundry~~
~~express~~
~~small key lock saw~~
~~24 ft 2 in mesh wire~~
8 - 1x4 - 12
5 - 1x4 - 14
5 - 2x4 - 12

~~[illegible]~~
~~dipper~~
osmic acid
~~picric~~
enamelled pail
~~2 doz [illegible]~~
drawing pencils
H_2SO_4
~~formaldehyde~~
soap rich
wheat
~~1 doz. latches for doors~~
~~½ doz. 3" strap hinges~~
Bull Durham for Hanson laundry Hot B.
1 bb shaplin
Pinolatina
pay roll 5.40
3 [illegible] glass



United States Department of Agriculture

FIELD DIARY

Utah,
Aug. 26 - Oct. 24, 1915.

OF

Mr Alex Ulmer

Assistant Botanist
(Official title.)

Corinne, Utah

NOTICE.—This book is Government property. The finder is requested to mail it to the DISBURSING CLERK, DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C., or deliver it to the official whose name appears above. A detachable addressed frank will be found on the last page; by tying this on the cover the book may be mailed without postage or wrapping fastened shut.

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This diary will be retained by the official preparing same, but will be subject to call by the administrative officers of the Department, including the disbursing officer, at any time.

When this book is filled another may be secured by application to the chief of your Bureau or to the disbursing officer of the Department.

James Wilson

Secretary of Agriculture.

8—333

1915

Bay Swallow
Tree
Black Sparrow
Sparrow "
Meadowlark
Mallard
King Fisher
Robert Shortwing
Robin
Goldfinch
Horned Lark
Magpie
Vesper Sparrow "
Western Jay "
Flicker
Chickadee
Song Sparrow
Morning Dove
Yellow-headed Blackbird
Mallard
Redtail
Greenwinged Teal
Cinnamon " "
Cooper
Great Blue Heron
Crested Heron
Sandhill "
Ibis
Burrowing Owl
Mountain Plover
Pied billed Grebe
Goldeneye

Bank Swallow
House Finch

Sparrows & Hawks

Bath run dry except for
Sorghum fence field
Ducks in Feeder
North Channel dry Segment
Dead ducks

no water in North Channel
when crossing
water in North Channel stops
1 1/4 to 1 1/2 miles east of check
Canal

No water at check 11
Lake for Feed
62 ducks flew
Ibis. Left
Also Ibis.

Antrim not in more
Bulletin for Mr. Ashby.

Aug 27

- Common
- Murre
- English Sparrow
- Redhead
- Redwing
- Spotted Sandpiper
- Coot
- Mallard
- Long-eared Chickadee
- Yellowlegs ~~107.1~~
- Calif. Gull
- Redhead
- Night Heron
- Flicker
- Swallow
- Great Blue Heron
- Marsh Hawk
- Sage Thrasher
- Canadian Zone
- Duck Hawk
- Tree Swallow
- Wigeon
- Sharp-shinned Hawk
- Barn Swallow
- Bank "

Woodhouse Jay
Mtn Plover

Aug 28
3 pl 3 1/4 m

- Redhead Kr-r-r-ee-ah
- Goldfinch
- Barn Swallow
- Raven
- Yellowhead
- Pileolated Warbler
- Kingfisher
- English Sparrow ~~108.6~~

♂ caught in traps
fluttered for a minute ~~114.0~~

#12

831 Green 7/8
832 Redhead 3/4

#7

833 Redhead 7/8
834 " "

#11

835 Gadwall 3/4
836 Redhead 7/8

#3

837 Redhead 7/8
838

#14

839 Green-winged Teal
840 Redhead 7/8

#13

841 Gadwall 3/4
842 Teal Teal
843 Redhead 7/8

#5

844 Mallard ♂ shot.
845 " Pb sp.

10.000 yd

#12 O.K.
14 O.K.
#3 O.K.
#11 O.K.
1 O.K.
#14 O.K.
2 O.K.

Long 24

7.000 yd 3:11 2/8

#12 O.K.
14 O.K. [illegible]
#3 [illegible] "
#11 [illegible] 1/4 "
1 [illegible] 1/4 "
#14 [illegible] 1/4 "
2 [illegible] 1/4 "
[illegible] 1/4 "
[illegible] 1/4 "
[

[illegible]

[illegible] little [illegible]

[illegible]

[illegible] Revolved at Short [illegible]

[illegible] much [illegible] [illegible] Canal

Water gauge 3 3/4 in

dead Mallard 1

English Sparrow ~~1865~~

[illegible]

Red Winged Blackbird

Barn Swallow

[illegible]

Nighthawk

Meadow Lark

Mourning Dove

Bobolink

Cleveland Redwing

Grasshopper Sparrow

Mallard

Common Crow

Redhead

Marsh Hawk

Crested

Coot

Savannah Sparrow

Orchard

Spotted Sandpiper

Killdeer

[illegible]

Yellow Bird

Pied Billed Grebe

Pectoral Sandpiper

Yellow Throat

Pelican

Red Winged Blackbird

Gull

Baird's Sandpiper

Sandhill Crane

Sparrow

Rough Legged Hawk

Yellow Bird

Black Tern

Redtail

Forster's Tern

Ringbird

Wm Rothrock

~~1874~~

~~1873, 1874, 1875, 1876~~

Brought in:

Canada goose flapper	1
Pintail young	1
Greenwing flapper	3
" adult	
Pintail	5
Mallard	1
Greenwing	5
Coot	1
	17

Anal temp. living birds:

Canada goose flapper ♀	~~104.6~~
Greenwing flapper ♀	~~106.4~~
" " "	~~107.2~~
" " "	~~107.2~~
Pintail 7/8 grown	~~105.6~~

6:00 P.M.
#13 O.K.
#14 solution 1/2 gm. feces thin watery white. Birds quiet but strong. Bird can stand & walk.
#3 solution 2/3 gm. feces thin & white.
#11 solution 3/3 gm. feces a little thin. Birds O.K. ate.
#7 solution 2/3 gm. feces a little loose mucus white. One bird barely able to stand.
#12 Redhead ate & drank. feces loose. Birds active.
#5 feces watery loose gum.

Aug. 31

7:00 A.M.
#13 O.K.
#14 solution 7/8 gm. feces firm. Birds O.K.
#3 solution 2/3 gm. feces loose white, slight discharge from nostril. Bird quiet but strong. eye also O.K.
#11 solution 1/3 gm. Birds O.K. Godwall eating. feces thin white.
#7 solution 3/4 gm. feces fairly firm. Birds O.K.
#12 solution 1/3 gm. Teal feces thin. Redhead firm. Birds active. Redhead eating.
#5 no 842 a little unsteady on feet. abundance of gum rubber feces.
#843 voided large amount of watery brownish feces.

#15 dead 1 greenwing
1 Pintail

Teal with wings outstretched. head to one side. feet under body.
Pintail head thrown on back. feet under body.

Water gauge 2 pl 2½ oz

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Marsh Hawk
[illegible]
[illegible]
[illegible]
Chicken
Great Blue Heron
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Sept. 1

9.00 P.M.
#13 O.K.
#14 no change
#3 bird unsteady but able to walk.
#11 Redhead head in pan feet under body in normal position
Goldwall in pan unable to stand can barely raise up head
Drinks bird fair, head to body
Q reflexes discharge from eyes
eye reflex O.K. conjunctival
swallowing, blinking of
head pulse regular
#7 no change
#12 Redhead no change. Dead
dead.
#5 843 no change.
842 dead.

Sept 2

7.00 P.M.
#13 O.K.
#14 no change from this time
#3 more bitter, is little unsteady
feet, can stand & walk,
#11 overall dead
#7 blue bird still able to stand
feet, some yellow on abdomen
#12 from state, eyes
#5 = 2 dying, Redhead gone removed
Redhead O.K. eyes and
conjunctival reflex
#5 [illegible] 843 dead
#14 O.K.
#3 O.K.
#15 1 partial dead

English Sparrow ♂ im. ~~1075~~.

Water and Valley Council

weather going: 3/2 2/2

Sculpt
2 Pinfeals
1 Wagon
1 Redhead

932 Redhead full grown
933 "
934 "
935 "
936 "
937 "
938 "
939 Coot "
940 "
941 "
942 "
943 "

6.05 P.M.
#30. K. Gadwall grown a little
#14 O.K. Mallard 1/5 grown
#3 Mallard grown but still a little on chestnuts
#11 O.K.
#7. 2 933 males [illegible]
but [illegible] of muffler shows
other hand O.K.
#12 Gadwall grown hand [illegible] wing
#5 Black 1/3 grown
here [illegible]
[illegible] a [illegible] hand [illegible]

Appearance indicative of difficulty in breathing. Sent 7 [illegible] 3 ft 1/2 inch [illegible] an appearance of livid spots occasioned by increased blood [illegible] swelling with a serous humor dropped off

7:00 a.m.

+13 10.

+14 [illegible]

[illegible] apparently about normal.

11 [illegible] a little [illegible] not much [illegible] birds [illegible]

[illegible] Blue Heron

Mallard

Pintail

Green Winged Teal

Canvas Back

Redhead

Lesser Scaup

Ring Neck

Bufflehead

Golden Eye

Long Tailed Duck

Surf Scoter

White Winged Scoter

Red Breasted Merganser

Gray Duck

Black Duck

Pigeon Hawk

Sparrow Hawk

Marsh Hawk

Bittern

Rail

Coot

Snipe

Sandpiper

Plover

Yellow Legs

Sea Gull

Tern

Kingfisher

Swallows

Crow

Robin

Blackbird

Sparrow

Night Hawk

Swallow

[illegible]

[illegible]

11.00 A.M.

[illegible]

2.30 P.M.

[illegible]

Yellow Warbler

Hammond

Lesser Yellowlegs

Black-billed Plover.

6.15 P.M.

both

7.00 A.M.

2 ft 10 1/2 in

Redwing

Bean Swallow

Coot

6:15 P.M.

current out Welby canal
Cost 1 pt. and 1 pt following
Water gauge 7 ft in
Now channel be flooded
Plots are still out from the
gain of 3 ft 3
from dress of [illegible]
[illegible] looking [illegible]
the solution

6:15 P.M.
#13 gradually with a slight
[illegible] expected for both
[illegible] Others O.K
#10 solution [illegible] from
Code O.K.
#3 solution "O.K." [illegible]
And O.K.
[illegible] solution with [illegible]
[illegible] [illegible]
water [illegible] little lower
[illegible] with clear
#6 solution [illegible] no change
#12 solution [illegible] a little
lower
#5. [illegible] [illegible]
[illegible]

3 pt. 7
2 pt 11 in
#14 solution 1/3 gm. no change
#7 solution 1/2 gm. had a
little [illegible] in [illegible]
#11 solution little and
[illegible]
[illegible]
[illegible] and
[illegible]
[illegible] [illegible]
little clear. [illegible]
[illegible]
[illegible]
#9 solution 1/3 gm. showed
no change [illegible]
#12 solution 1/3 gm. no
change
#5 [illegible] [illegible]
[illegible]

Sept. 7

1 Marsh Hawk
1 Barn Swallow
1 Night Heron
1 Bittern
1 Redhead
4 Coot
1 Ruddy
1 Redwing
4 Yellowhead
4 Canada Goose
1 Gray Gull
1 Brown
1 Black Bellied Plover
1 Smoking Heron
1 Savanna Sparrow
1 Spotted Sandpiper
1 Calif Gull
1 Ring billed Gull
1 Crow
1 Bank Swallow
1 Duck Hawk

2:P.M. All bird unable to stand, wings bent from sides. almost entirely helpless ~~object~~ marked dyspnoea: eye reflex slow not discharge evident in throat. iris enlarged.
Palmed fin water refused to drink. Apparently unable to swallow.
5:00 P.M. bird dead

East Bay flooded
165 Gulls gathered here feeding and 150 Swallows or more. Gulls walked about picking at surface occasionally lifting up moss.
Great area here that has been alkali Barren covered now with Cambs quarter. Alkali feeding of soil. Lake water growing fresh. Jones formerly covered by bay as indicated by moss. Banana above water with peculiar alkaline taste little salt.
Thousands of Canbids drowned out deep cracks.
Strong alkalis in surface mud under moss where cracks surrounding are filled with water but surface not yet inundated.
Water in highest shallows very saline.

water gauge Peoria 10 7/8 in

#1 200 P.M.
#13 B.K. Redwall eyes writing.
#14 solution 7/8 gram pieces from
birds 10 K.
#3 solution 3/4 gram food B.K.
#7 solution probably from bottle
removed.
strange
#12 solution 1/2 gram. No change
#5 B.K.

#11 [illegible]

---

3 yr 5
2 yr 10 1/2 in

7:00 P.M.
#13 No change [illegible]
with [illegible] eyes.
#14 No change. Solution nearly
gone.
#3 solution nearly gone. No
change.
#11 B.K. water 1/2 gram
#7 solution 1/8 gram No change
#1 solution 1/2 gram " "
#5 [illegible] dark green
not [illegible] water [illegible] No
change [illegible]

#14
849 gruiming
850 Redhead 7/8
#3
851 Redhead 7/8
852 " "
#12
853 gruiming
854 Redhead 7/8

6:50 P.M.
#13 O.K. Good [illegible] eyes [illegible] found
#14 O.K. Redhead [illegible] gray
#3 O.K. [illegible] water
#11 O.K. Redhead [illegible] Tail
water 1/2 gram
#7 solution 1/3 gram. [illegible] bird
[illegible] both.
#12 O.K.
#5 [illegible] gone [illegible] so
abundant [illegible] O.K.

7:00 P.M.

Sept. 9
2 yr 6 3/4 in

#13 Redwall eyes [illegible] O.K.
#14 O.K.
#3 O.K.
#11 O.K. water [illegible]
#7 solution 1/4 gram no change.
#12 O.K. Redhead [illegible] rolled.
#5 no change

Yellowhead ~~[illegible]~~

Canvd ♀

Sept 10
left 5 1/2 a

- Meadowlark
- Redwing
- Junco
- Audubon Warbler
- Barn Swallow
- Redhead
- Coot.
- Magpie
- Redshafting
- Night Heron
- Wood Pewee
- Calif Gull
- Ring billed gull
- Franklin gull
- Black billed Plover
- Great Blue Heron
- Canada Goose
- Pomelink
- Goldfinch
- Pipit 108.1 ~~UK wing clipped 109.8~~
- Foster Tern
- No Phalarope
- Pintail
- Greater Yellow Legs ~~8/106 Foot in flight~~
- Spoonbill
- Mallard
- Ruddy
- Ruby-crowned Kinglet
- Pileolated Warbler.
- Sirot and Shrd

water has come up somewhat & thus receded due to wind

8 pintails, many gulls & a few black-billed Plover feeding on mud.

Possibility of 2 factors operating. Owens Lake certainly alkali. Part of Great Salt & Sulan Lakes alkali. Perhaps something close affects some of birds

But plumage carried to Sulan in feers

Water connected with very fairly fresh that isolated salinity

As water flows in it raises in hollows beyond flood line by evaporation later on drawing salinity.

Avoiding bones 1ft 1hr

7/2

Strong South wind 35-40 mile - water inundating flats at rate of 2ft per minute.

Froth carried in front. water runs forward fills up cracks and then goes on.

Surface covered with efflorescence a large part of which goes into solution in clothes

advance water is froth strongly saline. Froth filled with insects.

[illegible]

[illegible] Sept 11

Myiodioctes pusillus ~~107.6~~
Melospiza lincolni ~~107.21~~
English Sparrow
Tilebolated Swallow
Cormorant
Common Seal
Song Sparrow
Spotted Seal
Pintail
Sharp-tailed Grouse
Canada Goose
Pochard

3509 W. Gem Sol. [illegible]
3510 Gadwall ♂
3511 "
3512 "
3513 "
3514 Common ♂
3515 Red [illegible]

942 Coot
943 "
944 "
945 "

7:00 P.M.
- #13 O.K.
- #14 bird O.K. faces thru wind
- #3 O.K. very hungry
- #11 - solution 3/4 gone birds O.K.
- #7 solution 1/3 gone no change
- #12 " " O.K.
- #5 no change
- #4 solution 1/3 gone. O.K.

Sept 12
2 of 6 3/4 M

7:00 A.M.
- #13 O.K. (good all eyes, waiting -
- #11 solution 1/2 gone. bird O.K.
solution thru white.
- #3 solution 1/3 gone faces thru about
birds O.K.
- #11 solution almost gone removed. Redhead
seems dumpy. Seal faces thru white
not abundant.
- #7 solution 1/2 gone no change
- #12 solution 1/3 gone no change
- #5 no change bird O.K. able to
fly to top of pen
- #4 solution 1/3 gone. Redhead O.K.
Seal able to stand for short time only
but seems alert & bright, eyes fair
O.K. - marked dyspnea when bird
was frightened & wings held in
plane
#15 seal swimming actively about.
shaking tail. wings dragging but
able to stand in water & flap
them.

3:30
#4 Redhead stands & walks
two or three steps & then falls
on breast. seems quite
a slight watery discharge
from eye. M.G. works
with some difficulty
lower lid apparently functioning
slightly. some discharge
in nostril.
marked dyspnea
pulse very rapid bird excited
and apprehensive very light
tumel of wheat beside epiglottis
some sounds from throat.
wings hanging loose.
Placed in #15 drank once,
and then after a minute again.
For half a dozen times it
was slower in drinking & then
drank regularly, no attempt to bathe
although very much
Other bird pulse very
slow about 100-110 even when
excited. wings a little lower
tendency to fall on breast on
walking. Placed in water
drank & bathed at once wings
seem a little weak.

(Sept 14)
6.30 P.M.

- Redhead
- Bonteid
- Mallard
- Gadwall
- Barn Swallow
- Tree "
- Cormorant
- Goldfinch
- English Sparrow
  Palm Warbler
  Pipit
- Redwing
- Yellowhead
- Bright Horn
- Raven
- Goose
- Phalarope
- Ringbilled Gull
- Snowy Owl
- Willet
- Killdeer
- Crossbill
- Greater yellowlegs
- Wilson Phalarope
- Bufflehead
- Lesser yellowlegs
- Black-belted Plover
- Pectoral Sandpiper
- Baird "
- Marsh Hawk
  Bank Swallow
- Pelican
- Meadowlark

Water coming into East Pond surface dry & cracked covered with efflorescence. This proves presence of abundant alkalis in soil.

Pintails feeding along edge. Water scarce in cracks for isolated pools fresh. Bay will fill rapidly.

There is no reason to suppose that sick birds would not recover readily on water then as on river!

Only those with an overdose of those that for some reason had not access to fresh water for a time would be seriously affected.

Suspect poisoning some other factor whose virility must depend upon alkaline solutions.

6:30 P.M.

~~#13 O.K.~~

#14 Jacks thin & white! bird quiet solution 2/3 gran.

~~#3 solution 1 gram Jacks a little thin bird O.K. Improving~~

#11. Jacks thin. bird O.K.

#12 solution little weak bird O.K.

~~#5 O.K. improving~~

Sept 14
Eff 6 1/2 in.

7:30 a.M.
~~#13 O.K.~~
#14 Seal dead lying on beach
fat extended behind, no exudate from
eye bird still warm.
Smoking nostril
~~#5 O.K. Jaws abundant, lower~~
1/11 solution 1/2 gone bristle O.K.
Jaws gone.
#12 solution little used - birds O.K.
~~#6 Jaws showing much light~~
~~green again than abundant~~

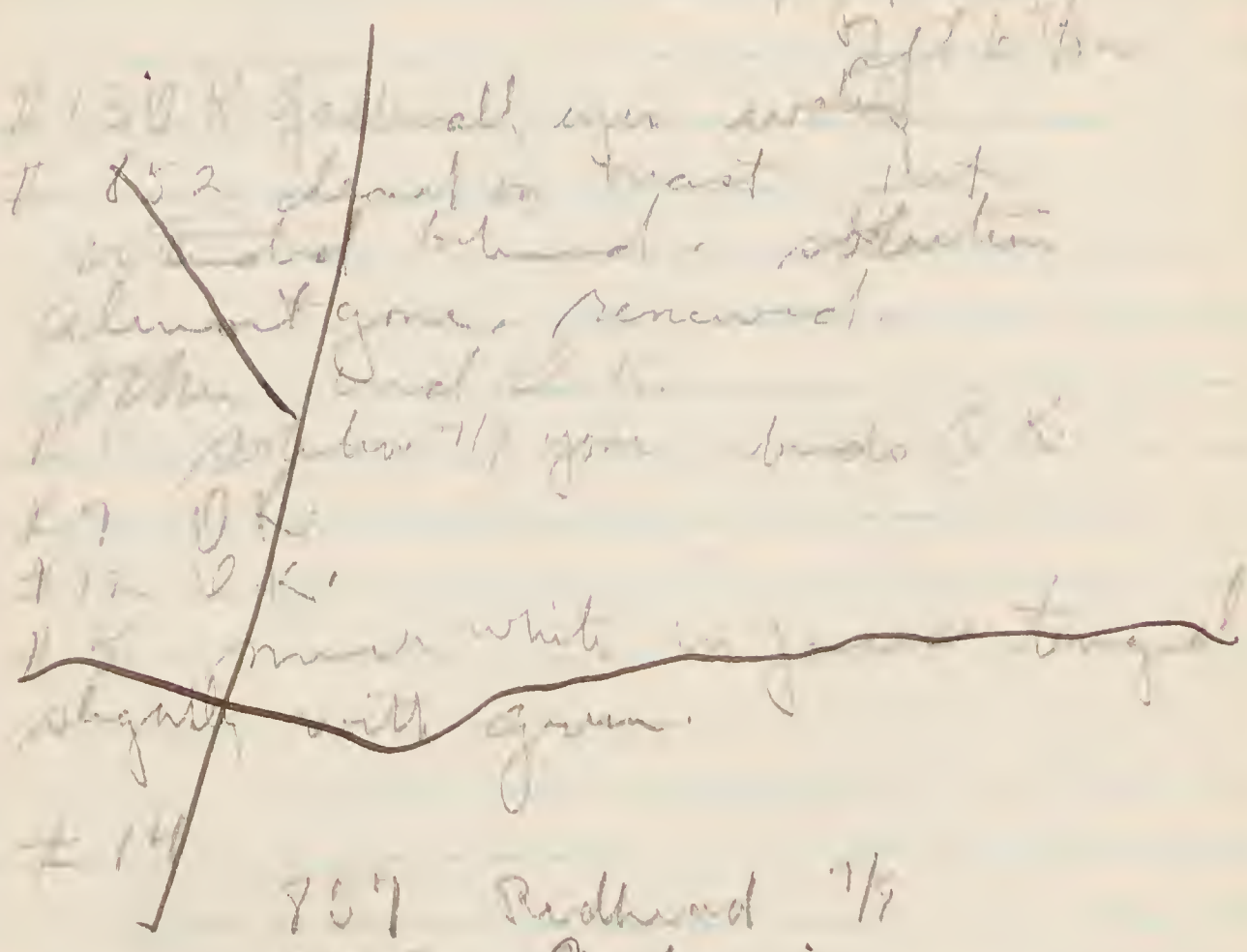
#7 grunting 855
Redhead 856

Mallards grouped with Brown
[illegible] in Bay
Heard one going down
bay until about 1/2 mile east
of Kong Point.

3516 Mallard ♂
7 " ♂ 801
8 Gadwall imm.
9 Mallard imm.
946 Redhead ♂ full 838
7 " ♀ " 817
8 " ♂ "
9 " ♀ "
950 " ♂ " 807
1 " ♀ " 815
2 " ♂ " 840
3 " " " 814

Pectoral Sandpiper
Willet
Killdeer
Barn Swallow
Night Heron
Redwing
Song Sparrow
Marsh Wren
Pintail
Pibolated Warbler
Yellowcrest "
Ruby crowned Kinglet
Ring-billed gull
No Phalarope
Duck Hawk ♀ ~~107.5~~
Night Hawk ~~♀ 105~~ Killed by Falcon
Grunting Seal
Magpie
Spoonbill
Cinnamon Teal
Wm Warbling Vireo ♂ ~~107~~
954 Redhead ♀ full 832
955 " ♂ " 830
956 " ♀ " 819
3520 grunting Seal ♂ Bark 829
3521 " " ♀ " 839

Oct 15



857 Redhead 1/1
858 Grafmuey.

Windrow of Cyphydra laevis on south shore Saugatuck det. Dustin
o little green

Water gage 3' [illegible]

- Barn Swallows
- Song Sparrow
- Chickadee
- Redwing
- Meadowlark
- Kingfisher
- Junco
- Yellowthroat
- Red-winged Trial
- Redhead
- Coot
- Pied Bill Grebe
- Mallard
- Marsh Wren
- Yellow Warbler
- Pintail
- Redhead
- Young Hawk
- Pelican
- Killdeer
- Lesser Yellow
- Willet
- Heron
- Bittern
- Bittern
- Goldwing
- Barn Swallows
- Fowler's
- Bittern
- White Sandpiper
- Franklin Gull
- Savannah Sparrow
- Yellowhammer
- Gull
- Wood Duck

6.35 P.M.

#13 Pulsed faces lower. Gradually faces lower, eyes coming open, tried blind in one eye & partly so in other, bodily condition good, eyes coming, comes down, fed at once, slowly returns to feeding, and with 0.5 cc with for option, finds easily on body floating on surface.

#14 U.K. experiment begun. 1/4 solution 1/4 gone, faces & both lower, no change in bud, #14 pulsed some, a little red, dead U.K. 7 eyes in fine condition. solution 1/4 gone.

#7 solution 1/3 gone, dead faces lower. Pulsed bud slightly do. but no change at all.

#12. no change, pulsed bud. [illegible]

Sept 17

7:00 a.m. off 5:20 a.m.

#1 no change

#11 solution of gone. faces almost gone. tools O.K.

#3. faces a little loose. agreeing with much white. Bird a little uneasy in movement. wings a little loose.

#4 solution gone. no change.

#7 solution gone. bird faces blue white. bird not so active.

Mallard no change

#10 solution gone. faces fine. no change

#15 Mallard dead. lying on back. feet stiffened. bird a large common white faces in good condition.

#15 Mallard has moving lifting in water but moving down along in heavily.

Sept 6 Sept 10

Long-billed Curlew
White rumped Sandpiper
Sanderling
Plover
Pectoral Sandpiper
Sanderling "
Pectoral
Semipalmated
Semipalmated Sandpiper
Ruddy
Black Turnstone
Pipit
Snipe
Bank Swallows
Merlin
Marsh Hawk
Pectoral

Sept 17

Brown Thrasher
Black-and-white Warbler
Redpoll
Redstart
Pine Siskin
Canada Goldfinch
Redpoll
Tennessee Warbler
Tufted Titmouse
Philadelphia Vireo
Magnolia Warbler
Myrtle Warbler
Nashville Warbler
Yellow-rumped Warbler
Golden-crowned Kinglet
Redbreasted Nuthatch
Canada Jay
Avocet ~~♀ 1.66 ♂ 1.07~~
Willet
Greater Yellowlegs
Red-backed Sandpiper
Goldeneye
Redtail
Sparrowhawk
Ring-billed Gull
Franklin's Gull
Coot
Cormorant
Black Duck
Bittern

6:15 P.M.

#1 solution 1/2 gram. Bands O.K.
#2 solution 1/2 gram. No change
#3 " 1/2 " " "
Redbreasted Nuthatch
#7 solution 1/4 gram. Bands
which [illegible] quite
#8 solution 1/2 gram. [illegible]
#5

8:30 Mallard ♂
1.95 grams C 1 gram head.

Sept 18.

7:00 A.M.
2 pt 5 in.
#1 O.K.
#4 solution 3/4 gram. [illegible]
[illegible] O.K.
#3 solution 1/2 gram. No change
#11 " " " "
#2 solution 7/8 " [illegible]
[illegible] able to [illegible]
[illegible] solution [illegible]
#12 solution 7/8 gram. [illegible]
#5 [illegible]

Sat 17

House Finch
Goldfinch
Song Sparrow
Redwing
Night Heron
Pickerelweed Warbler
Redhead
Coot
Cormorant
Great Blue Heron
Ruddy
Meadowlark
Magpie
Wm Gruber
Flicker
Duck Hawk ranging Night Heron Magpie B.D
Raven
Bronzed
Pintail
Avocet
Willet
Dowitt
Calif Gull
Ring Bill "
Marsh Wren
Savanna Sparrow
Mallard
Killdeer
Night hawk
Hudsonian Godwit

dead Wildwood
Seal 1
Redhead 11 11
Bittern 1

6:30 P.M.
* #13 O.K.
#14 solution 7/8 gms. Jaws in gum stain 1 much white. birds seem normal. ate.
* #3 Solution 3/4 gms no change.
* #11 solution 7/8 gms. birds appear normal.
* #7. solution 7/8 gms. Jaws lose much white. Redhead quiet. seal on just but weak. wings hanging loosely from sides
slight water discharge from eye. action of m. n. uncertain brought back regularly a little more than 1/3 distance across eye. pulse regular no dyspnoea
+ #12 gum nearly empty birds normal.
#5 one abundance of dark green faeces much urine smaller bird quiet open mouth but does not quack

- Chickadee
- Audubon Warbler
- Magpie
  Ruby-crowned Kinglet.
- Magpie
- Redbird
- Chipping Sparrow
- English " "
- Pipit.
- Pine Siskin
- Goldfinch.
- House Finch
- Junco

157	Redhead ♂	
158	"	♂ 333
159	"	♂ 351
160	"	♂
161	"	♂
162	"	♂
163	"	♀ 134
164	"	
165	"	
166	"	
167	"	
168	"	

- Audubon's Warbler
- Junco
- Ruby crowned Kinglet
- Rosebreasted
- Purple
- Red tailed hawk
- Night Heron
- English Sparrow
- White crowned "
- Coot
- Marsh Wren
- Short eared Owl
- Cormorant
- Pintail
- Mallard
- Goldeneye
- Barrow's Horn
- Bufflehead
- Pacific Yellowlegs ♀ ~~[illegible]~~
- [illegible]
- Greater yellow legs
- Western Sandpiper
- [illegible]
- Pintail
- [illegible]
- Mallard
- Bittern
- Cinnamon Blue Winged
- Shoveler
- Widgeon
- Cackling Goose
- Ringbilled Gull
- Barn Swallows
- Oriental Sparrow ♀ ~~[illegible]~~

10:00 P.M.

#13 O.K.

#14 solution 1/2 gone. Just have green with a little brown. Looks no at Reduced image

#11 solution 1/2 gone. Just have a little brown. Looks not at Reduced image

#7 solution 1/2 gone. Just have green

#12 solution 3/4 gone - a change! Just have green & green with a slight shade - Looks almost gone

#2

Sept 21
2 ft 6 1/2 in

#13 O.K.

#14 solution 1/2 gone. Looks almost gone. Just a little brown. Green with slight green shade change - looks

#11 solution 1/2 gone - no change

#7 1/2

#12 solution almost gone. Looks no change

#2 Just have brown. Very dark green in color - no change at all!

Godwit
Redwood

~ pectoral & great Knot

[illegible] 1 foot

6:30
#13 O.K.
#11 solution 1/4 [illegible] no change
#3 O.K.
#11 solution 1/4 [illegible] no change
#7 solution [illegible]
#12 solution [illegible]
[illegible] at 4:30 bird was resting in [illegible] area a little [illegible] which it got out but [illegible] normal.
Now it was dead, still [illegible] lying on back with feet in air

Sept 22

7:00 AM. 2 Hb's in
#1 O.K.
#14 solution [illegible] fully [illegible] no change [illegible]
#3 O.K.
#11 solution [illegible] no change
#7 solution 3/4 [illegible] no change
#12 solution 1/2 [illegible]

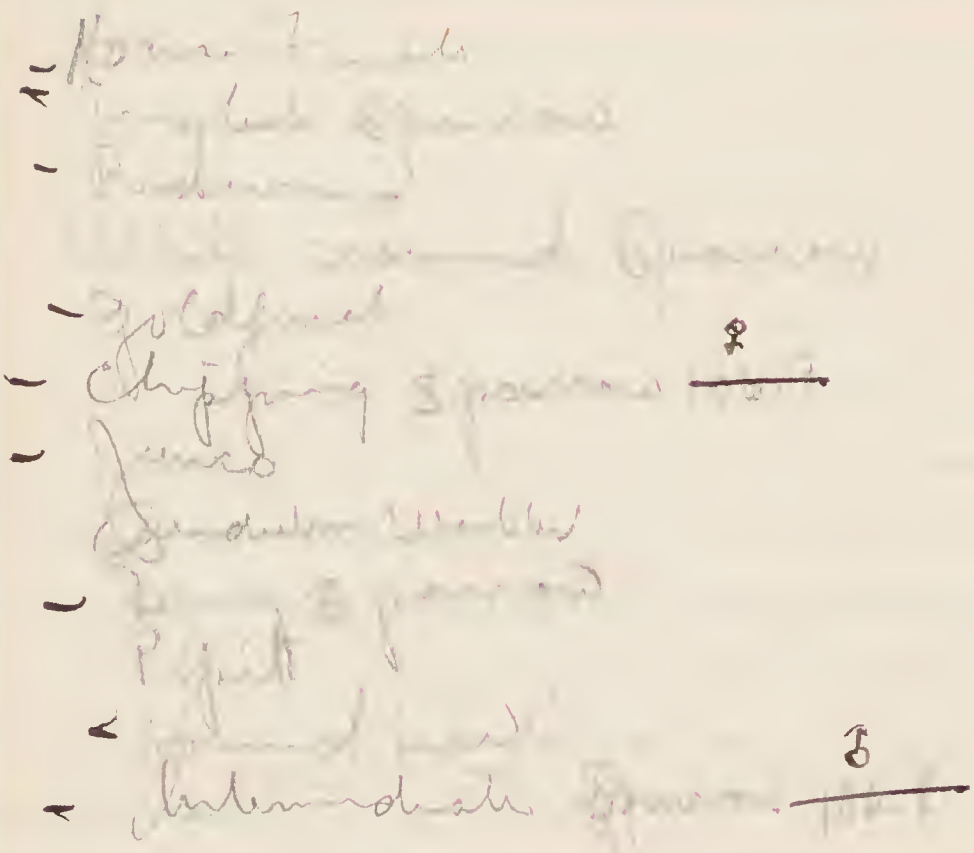
- Redhead ~~wing~~ Wha whāy ō?

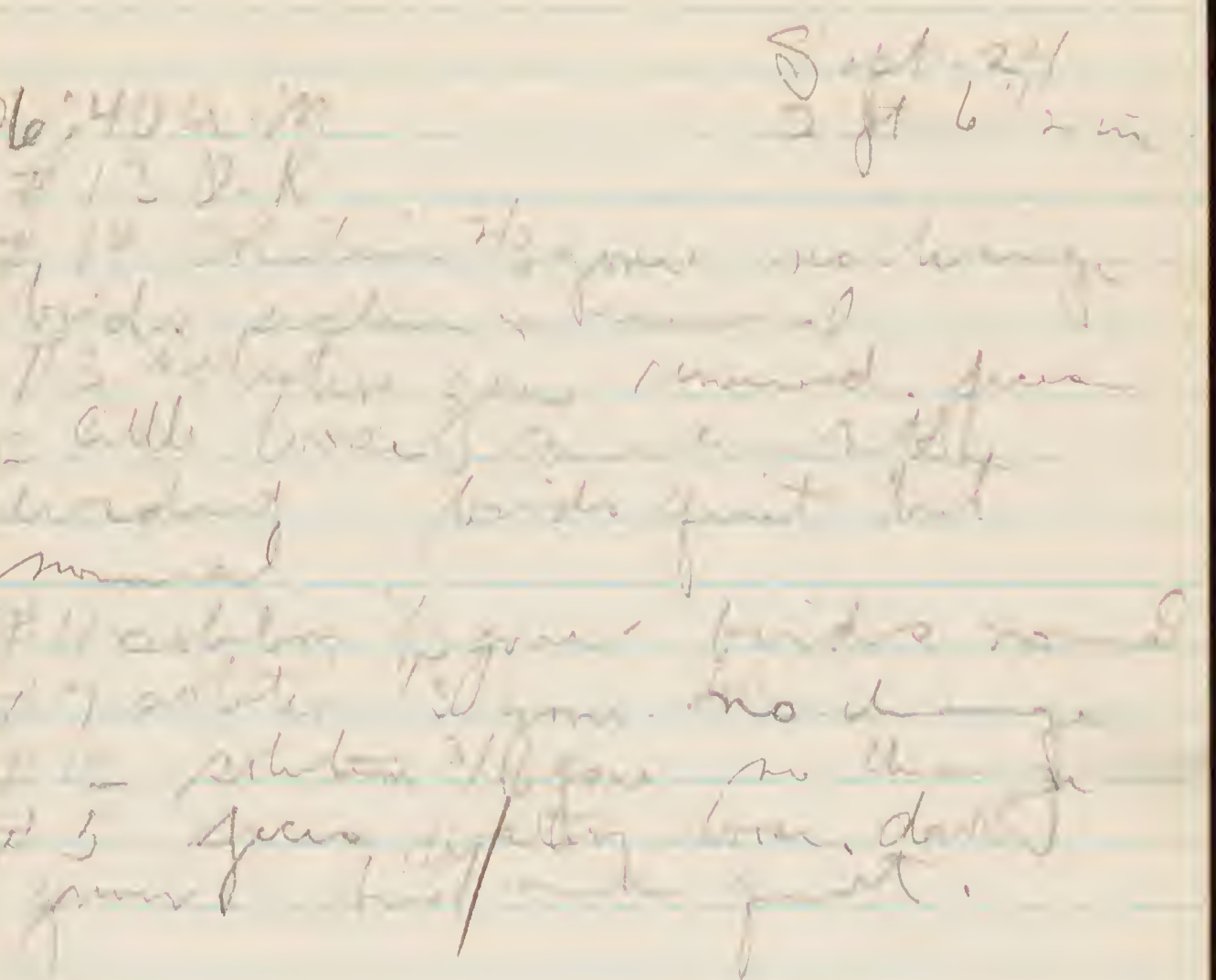
Redhead showing birds appear normal.
#3 solution 3 gave fair a little [illegible]
#11 solution [illegible] birds normal
#7 solution 1/8 gave no change
#12 solution 1/8 gave no change

Sept 23
Sept 25

#14 solution 1/3 gave no change
#3 solution 1/2 gave birds normal
#11 solution 1/8 gave birds normal
#7 solution only gave a slight removal from [illegible] change the bird
#12 solution gave normal birds
#5 [illegible] gave a small amount of gram [illegible]

6.30 P.M.
#13 O.K.
#14 solution 1/2 gave birds O.K
#3 solution 1/4 gave birds rather weak.
#11 solution 1/8 gave birds O.K.
#7 solution with used no change.
#12 solution 1/3 gave no change
#5 solution [illegible] gave fair bird O.K.



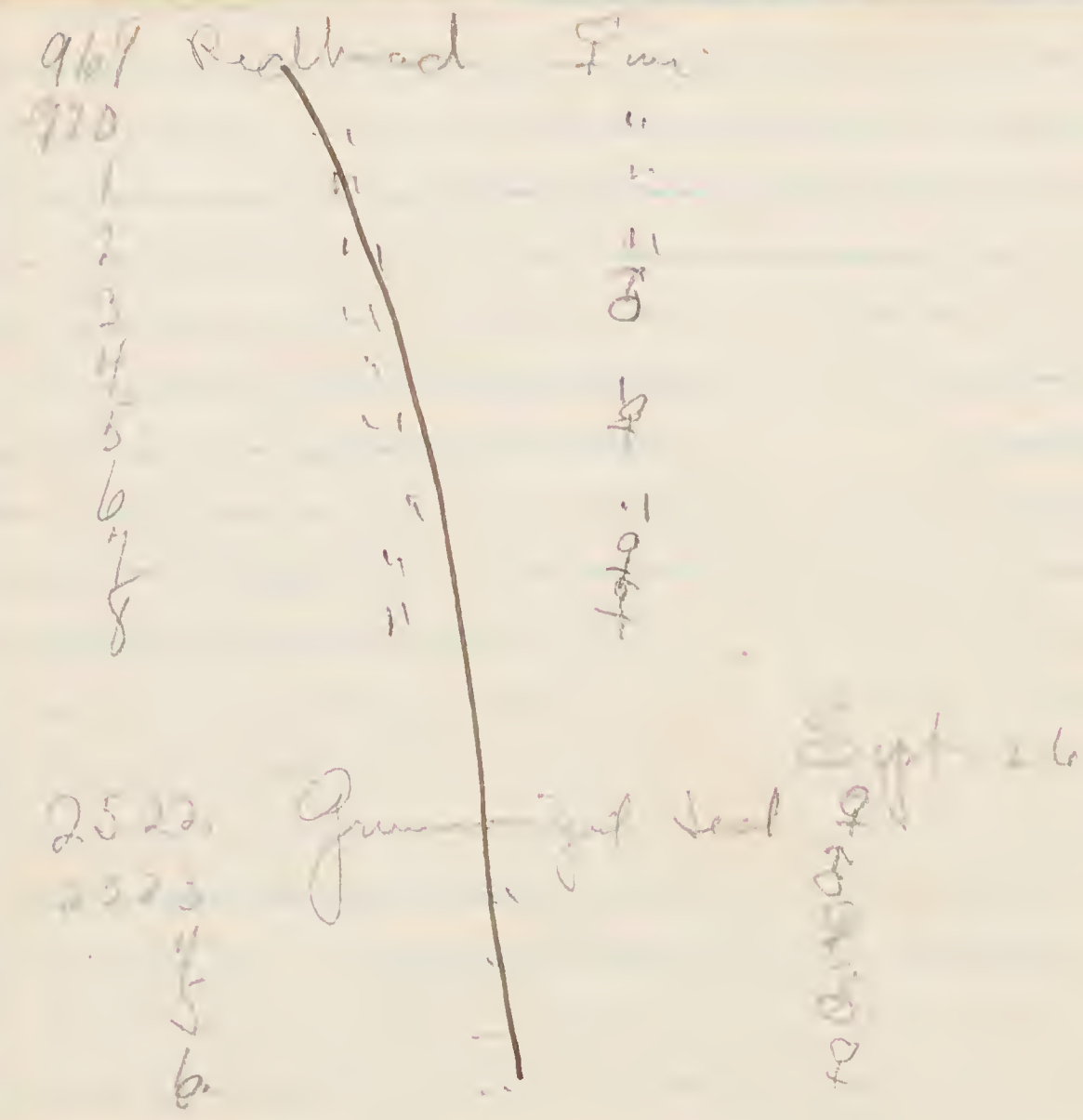


Conductivity Health

[illegible]

[illegible]

[illegible]



979 Podisus " " (856)
980 " " (841)
981 " " (861)
982 " " (857)
983 " " (848)
984 " " (854)
985 " " " "
986 " " " "
987 " " " "
988 " " " "

3527 Pristaulacus f. sim.
3528 Gnamptodonta ♂ (847)
1 " " " (853)
3530 " " ♀ (820)
1 " " ♀ (858)

29365 Passandromastrum f. sim.
6 " " " ♂ "
7 No. phalangi

Dendroica tig.
Falls Church, Va. April 19.

Nicolaus
Rehring
Spence
Capital Spence
Pinky-cuckoo Wright
Hermit Thrush
Pine Siskin
Grasshopper Sparrow

29368
Fim. Passandromastrum

989 Mania americana f. ♂ Aug 62
990 " " " "
1 " " " "

Van Beneden-
Animal Parasites & Messmates.

Fraenkel, Carl-
Text book of Bacteriology.
New York, Wm Wood & Co.

Mitchell, P. C.
The Childhood of Animals
New York.
Frederick A. Stokes Co.

Fraenkel - Bacteriology.
3rd ed. 1891. Linsley trans.
p. 336-
Chicken cholera.
bacteria are short but broad rods with rounded ends, immobile but frequently met with in unions of two, more rarely in long threads of greater numbers. In staining single cells take up color readily only at the ends while middle remains unstained and appears as a bright gap between the two darker poles. Colored ends are frequently mistaken for independent organisms. Germs may pass stomach without being destroyed by its acid. Thrive at ordinary as well as at breeding temperatures and belong to semi-anaërobic kinds.

From cultures fowls geese pigeons, sparrows, mice & rabbits can be infected by inoculation or subcutaneous application. Mixed with the blood of chickens, pigeons, mice, & rabbits the symptoms referable to the alimentary canal (prominent under natural conditions) will appear with great distinctness.

Post mortem the bacteria are found in blood & all organs and the affection due to the subcutaneous application is plainly characterized as genuine septicæmia. At front of inoculation the subcutaneous cellular tissue in neighborhood of puncture is in state of hemorrhagic inflammation & irritation. If transmission is effected by feeding the intestinal mucous membrane is the chief seat of the changes.

It is pretty certain that in most cases infection ensues from animal to animal and is brought about by bacilli contained in the excrements of diseased individuals being reabsorbed with the food by previously healthy birds.

Poisons too may be transmitted from sleight lesions of intestinal. The vital properties of the bacillus under not favorably affect may also infect the body.

Chickens frequently fall into state of great debility & apathy. They become motionless in the act of scratching, slowly stretch out & with drooping feathers, half closed eyes, and fall into a death like sleep from which they awaken no more. At the climax of the disease, which terminates fatally in about 24 to 48 hours the animals cluck very loudly, liquid is passing, & white pasty excreta containing large quantities of bacilli.

Post mortem labels rather considerable swelling of spleen, sometimes also of the liver, hemorrhagic, condensed infiltration in the lungs, and especially a very intense inflammation of the small intestine particularly in its upper portion. The mucous membrane is greatly swollen & reddened, frequently interspersed with small

Ecchymoses also occur in cases progressing somewhat more slowly. The rods are found microscopically in the blood & all organs.

p. 339 mentions a bacillus of Duck Cholera investigated by Cornil. p. 340 says that it affects only ducks not pigeons or chickens

Oct 2

Card grebe
Coot
Wigeon
Spoonbill
Blackwinged
Stilt
Sandpiper
Pectoral
Sandpiper
Redshank

Teal
Pintail 1
Wigeon 1
Wn Sheldrake 1
Pintail 1
Wilson Phalarope 1
Spoonbill 1

Oct 3

Coot ///
Wigeon 1
Spoonbill 1
Wn grebe 1
Cormorant 1
Sandpiper
Redshank
Curlew
Gull
Card grebe
Spoonbill
Bonaparte's Sandpiper
Pectoral
Dowitcher
Wilson's Sandpiper
Sandpiper sp 1 ~~Oct 5~~
Spotted Redshank
Stint
Killdeer
Wn Grebe

Gull
Red Breasted Merg
Wn Sheldrake
Teal
Mallard
Wigeon
Spoonbill
Sandpiper
Buffleheaded
Mallard
Mallard Teal
Sandpiper
Semipalmated Sandpiper
Green winged teal ~~Oct 5~~
Card grebe
Spoonbill
Bonaparte's Sandpiper
Pectoral
Dowitcher
Wilson's Sandpiper
Sandpiper sp 1 ~~Oct 5~~
Spotted Redshank
Stint
Killdeer
Wn Sheldrake
Pectoral Sandpiper
Wn Grebe

Gull ||||| ||||| ||
Spoonbill |||
Mallard ||||
Sandpiper ||
Killdeer |
Bittern |

~~♂ 1046 ♂ 1046 ♀ 1047~~

Amyrell

Common

Pillsbury

Common

Pectoral Sandpiper

N
S

Mrs Jno A. Dressler
Malta Mont.
Harry Cosner
Malta, Mont.
Pres. Milk River Valley Gun Club

E. S Klower
Malta, Mont.
W. McHellan
Malta, Mont.

Met at Bear River Club.
Mr. J. C. Neeley.
wishes list of birds on marsh
send him photo of flapper seal.

Mr. Painter

Mr. Cuthbert

Mr. Cherrie

Mr. Porter

Mr. Sanborn

Oct. 14

- Flicker
Eng. Sparrow
- Night Hawk — 2 ft 3 3/4 in
- Redhead
Raven
- Pied billed Grebe
- Ring billed Gull
- Caby. Gull

3113 3114 991 3117

3115 3116

(Calliopsumophilus)

Oct. 22, 1915

Received from Alex Wetmore
U. S. Department of Agriculture
Three & 10/100 dollars for
cash fare Tabiona Utah to
Ogden Utah as per
attached bills

Catoptrophorus semipalmatus
Spun curlew of which only one is semipalmated.
Among 12 grand [illegible] one [illegible] wing length [illegible]

Accipiter cooperii wing measurement 5th grade could [illegible] longer than [illegible] longer than sixth

Phoenicopterus ruber wing [illegible]

Ophisthocomus hoazin wing [illegible]

Attendance 10/24

3396 Tolman
97 Woodhouse Jay
98 Starling
99 Robin

Book 612 H.S.G.S

Omitted Vaughan
Jane Gordon
[illegible]

Oct. 8

Chugwater to Wash.
no rate quoted via Butte

$ 39 00

Emil Starz
Livingston Vaca of Am Nat Bank
Helena, Mont.

Lake Bozeman, Mont.

3077	Pacanchelibus lecanta	Oct 3, 1915	♂	3333
3078 2	Zonotrichia gracula	Oct 4 1915	♂	3334
3079 3.	Melothrus ater	"	"	3335
3080 4	" "	"	"	3336
3081 5	Passerella iliaca	"	"	3337
3082 6	Junco hyemalis	"	"	3338
3083 7	Colaptes c. calfornicus	"	♀ad	3339
3084 8	" "	"	♂	3340
3085 9	" "	"	"	3341
3086 10	Larus californicus	"	♀im	
	Gallinago delicata	"	♂	3342
	Melanitta carbonica	Oct 4		3343
	Bucephala albeola	"		3344
	Bucephala clangula	"		3345
3087 11.	Gallinago delicata	Oct 5	♀	3346
3088 12	Pacanchelibus lecanta	"	♀	3347
3089 13	Spizella m. ochracea	"	♀	3348
975 14	Calcarius l. lapponicus	"	♀	3349
976 15	Spizella m. ochracea	"	♀	3350
977 16	Gallinago delicata (Wilson)	"	♂	
3090 17	Xanthocephalus xanthocephalus	Oct 6	♀	3351
3091 18	Euphagus carolinus	"	♂	52
3092 19	Larus californicus	Oct 7	♀	
3093 20	Oreoscoptes montanus	"	♀	53
3094 21	" "	"		54
3095 22	Colaptes c. calfornicus	"	♂	55
	Bucephala clangula			56
	Melanitta carbonica	"	♂	57
3096 23	Mareca americana	"	♂	58
3097 24	"	"	♀	59
3098 25	Spatula clypeata	"	♂	60
3099 26	" "	"	♀	61
3100 27	Lophodytes cucullatus	"	♀	62
3101 28	Podiceps nigricollis	"	♂	63

[illegible]

M. H. Walker
Pres. c/o Walker Nat. Bank.
Salt Lake City
Utah

[illegible]

dr account Duckville Gun Club

Aug. 28	telephone	Ogden	.21
Sept 2	"	Salt Lake	.61
" 5	"	Ogden	21
Paint for Laboratory			2.00
			3.03

~~Sept 6 Paid to Bennett 3.03~~

Kuyar, Finch & Cook want dynamite pictures.
Cook wants boarding picture.

Sept 21	telephone	Salt Lake	.61
" 29	"	Corinne	16
			$ 3.80

Sept. 29 paid to G. N. Ball $ 3.80

30	Lv.	Brigham #9,	4:15 P.M.
1	Arr.	Butte	6:45 A.M.
1	Lv	" G.N. # 236	3:00 P.M.
2	Arr.	Havre	2:10 A.M.
	Lv.	" #2	2:55 A.M.
	Arr.	Malta	5:22 A.M.

J. F. Spindler
c/o O. S. L.
Brigham Utah.

Dr. C. C. Adams
c/o New York State College of Forestry
Syracuse, N. Y.